

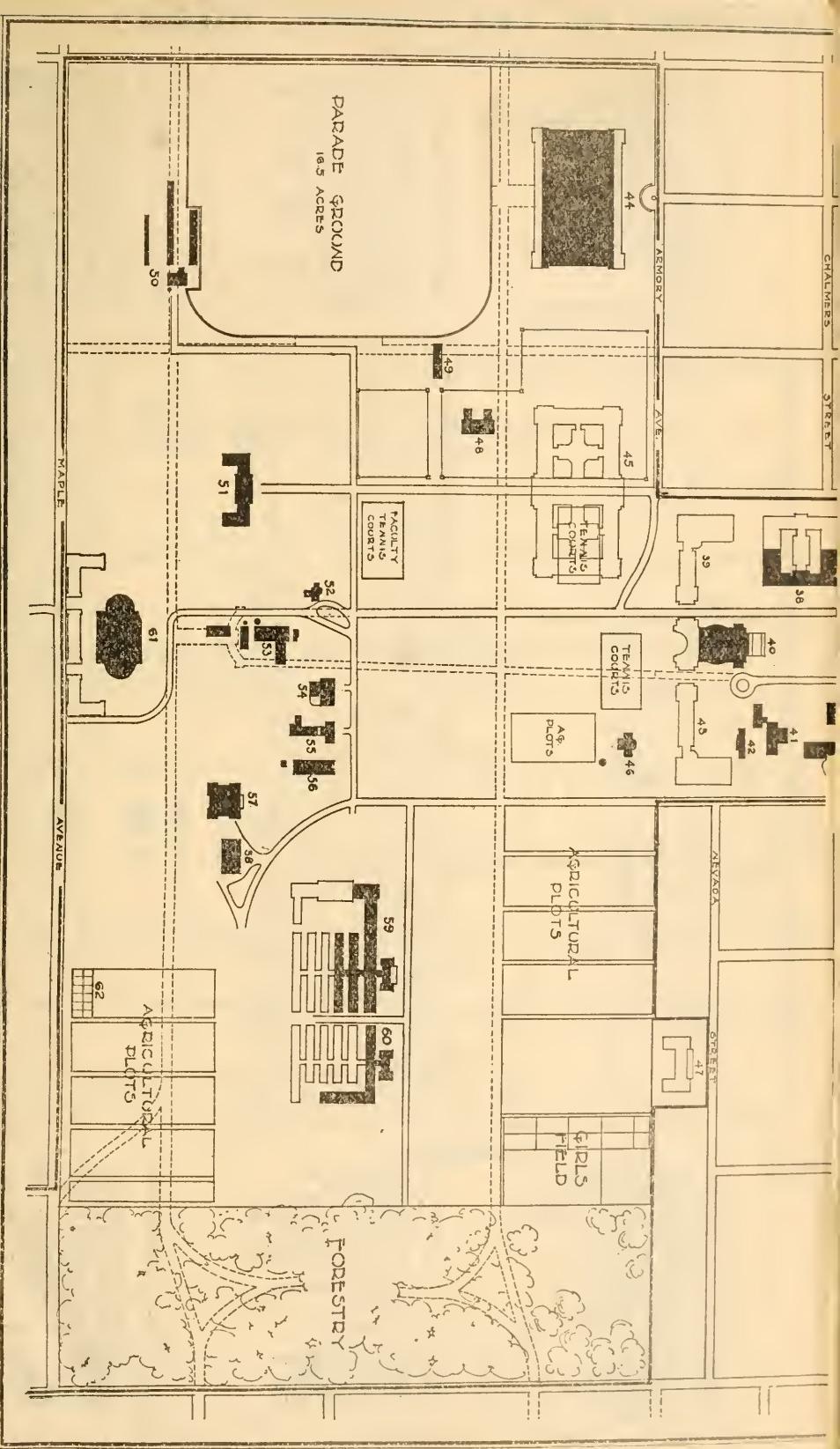
UNIVERSITY OF ILLINOIS  
ANNUAL REGISTER  
1915-1916



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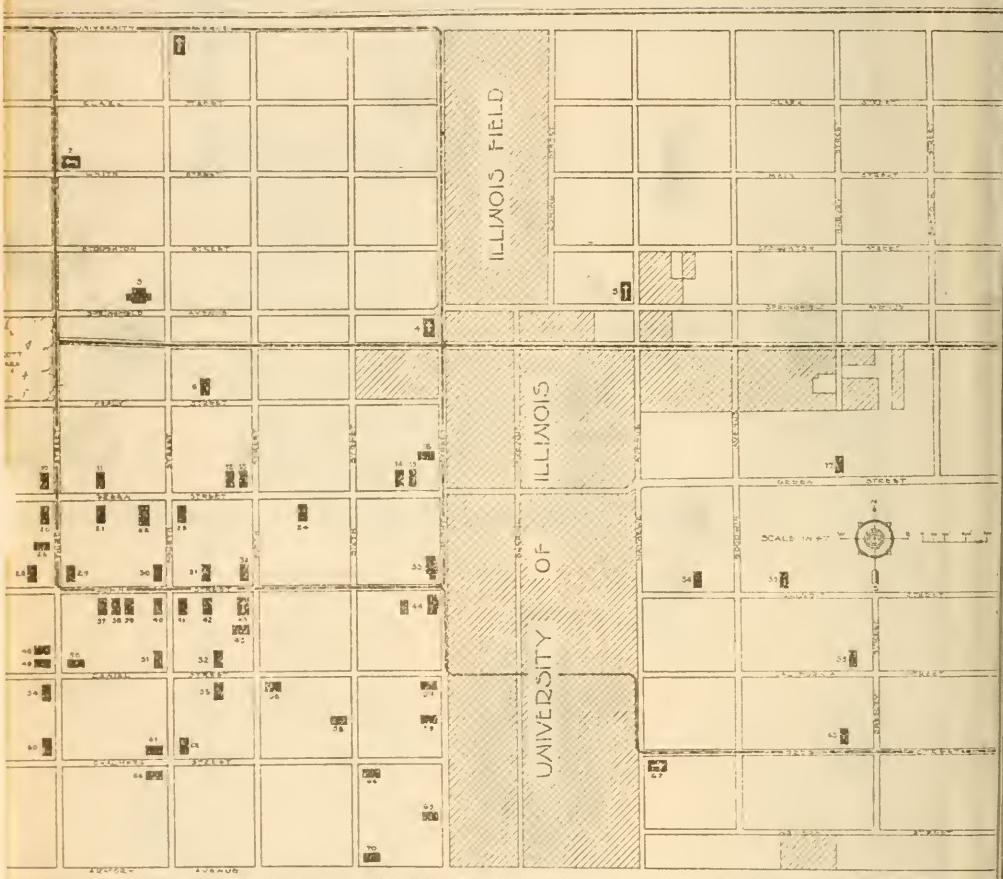
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# ENVIRONS OF THE CAMPUS, 1915-16

## KEY, ALPHABETICAL

- |                            |                         |                           |
|----------------------------|-------------------------|---------------------------|
| 64. Chi Psi                | 49. Kappa Sigma         | 1. St. Peter's Evang. Ch. |
| 35. Chinese Club           | 20. Lambda Chi Alpha    | 54. Sigma Alpha Epsilon   |
| 4. Church of Christ        | 59. Osborne Hall        | 32. Sigma Chi             |
| 22. College Hall Dormitory | 11. Phi Alpha Delta     | 27. Sigma Kappa           |
| 70. Congregational Guild   | 62. Phi Delta Phi       | 15. Sigma Nu              |
| 55. Cosmopolitan Club      | 8. Phi Delta Theta      | 14. Sigma Pi              |
| 37. Delta Gamma            | 41. Phi Gamma Delta     | 25. Tau Beta Pi           |
| 40. Delta Kappa Epsilon    | 28. Phi Kappa           | 21. Tau Kappa Epsilon     |
| 29. Delta Tau Delta        | 61. Phi Kappa Psi       | 19. Theta Delta Chi       |
| 13. Delta Upsilon          | 65. Phi Kappa Sigma     | 46. Triangle              |
| 58. Gamma Alpha            | 50. Phi Sigma Kappa     | 5. Trinity M. E. Church   |
| 53. Gamma Phi Beta         | 48. Pi Beta Phi         | 67. Unitarian Church      |
| 2. German M. E. Church     | 17. Pi Omicron          | 34. University Club       |
| 16. Illinois Union         | 43. Presbyterian Church | 33. Y. M. C. A.           |
| 31. Illus                  | 45. Presbyterian Hall   | 44. Y. W. C. A.           |
| 10. Iris                   | 7. Psi Delta            | 68. Zeta Beta Tau         |
| 57. Kappa Alpha Theta      | 12. Psi Upsilon         | 18. Zeta Psi              |
| 60. Kappa Kappa Gamma      |                         |                           |



## KEY, NUMERICAL

- |          |                            |                         |                          |
|----------|----------------------------|-------------------------|--------------------------|
| . Church | 19. Theta Delta Chi        | 37. Delta Gamma         | 54. Sigma Alpha Epsilon  |
| urch     | 20. Lambda Chi Alpha       | 38. Chi Omega           | 55. Cosmopolitan Club    |
|          | 21. Tau Kappa Epsilon      | 39. Alpha Chi Omega     | 56. Acacia               |
|          | 22. College Hall Dormitory | 40. Delta Kappa Epsilon | 57. Kappa Alpha Theta    |
|          | 23. Chi Phi                | 41. Phi Gamma Delta     | 58. Gamma Alpha          |
|          | 24. Alpha Rho Chi          | 42. Alpha Tau Omega     | 59. Osborne Hall         |
|          | 25. Tau Beta Pi            | 43. Presbyterian Church | 60. Kappa Kappa Gamma    |
|          | 26. Alpha Gamma Rho        | 44. Y. W. C. A.         | 61. Phi Kappa Psi        |
|          | 27. Sigma Kappa            | 45. Presbyterian Hall   | 62. Phi Delta Phi        |
|          | 28. Phi Kappa              | 46. Triangle            | 63. Alpha Delta Pi       |
|          | 29. Delta Tau Delta        | 47. Beta Theta Pi       | 64. Chi Psi              |
|          | 30. Alpha Delta Phi        | 48. Pi Beta Phi         | 65. Phi Kappa Sigma      |
|          | 31. Illus                  | 49. Kappa Sigma         | 66. Acoth                |
|          | 32. Sigma Chi              | 50. Phi Sigma Kappa     | 67. Unitarian Church     |
|          | 33. Y. M. C. A.            | 51. Alpha Xi Delta      | 68. Zeta Beta Tau        |
|          | 34. University Club        | 52. Alpha Sigma Phi     | 69. Alpha Chi Sigma      |
|          | 35. Chinese Club           | 53. Gamma Phi Beta      | 70. Congregational Guild |
|          | 36. Chi Delta              |                         |                          |

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## ANNUAL REGISTER 1915-1916

General Announcements, 1916-1917  
Faculty and Courses, 1915-1916  
Students, 1915-1916

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FEBRUARY, 1916



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# CALENDAR 1915, 1916, 1917

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# THE UNIVERSITY CALENDAR

1915-1916-1917

## FIRST SEMESTER, 1915-1916

Sept. 13-17, Mon. to Fri.	Entrance examinations
Sept. 14, Tues.	Quarterly meeting of the Board of Trustees
Sept. 15, Wed.	Scholarship examination for second nominees
SEPT. 20-21, MON., TUES.	REGISTRATION DAYS
Sept. 20, Mon.	Registration, School of Pharmacy
7 p. m.	Examination for exemption from Rhetoric 1
Sept. 22, Wed., 8 a. m.	Instruction begun
4 p. m.	Freshman convocation
Sept. 22-24, Wed. to Fri.	Entrance examinations, departments in Chicago
Sept. 25, Sat.	Assignments in the Brigade posted (Engineering Building, first floor, west end)
Sept. 27, Mon.	Military drill (Mil. 2) and Hygiene lectures (P. T. 1a and 9) begun
Sept. 27-30, Mon. to Thurs.	Examinations for removal of conditions, College of Medicine
Sept. 30, Thurs.	Registration, College of Medicine
Oct. 2, Sat., 5 p. m.	Latest date for rebates in full and for change of study-list without fee
Oct. 4, Mon., 4 p. m.	Senate meeting
Oct. 6, Wed.	Registration, College of Dentistry
Oct. 7, Thurs.	Registration closes, College of Medicine
Oct. 15, Fri.	Assignment of vacant scholarships in agriculture and household science
Oct. 16, Sat.	Registration closes, College of Dentistry
Oct. 22, Fri.	Latest date for removal of "incompletes"
Oct. 29-31, Fri. to Sun.	Alumni home coming
Nov. 1, Mon., 5 p. m.	Latest day for announcement of subjects for all undergraduate and graduate theses
Nov. 16-24	Mining inspection trip
Nov. 18-20, Thurs. to Sat.	High school conference
Nov. 20, Sat.	Latest date for rebates of one-half fees
Nov. 22, Mon.	St. Louis Symphony Orchestra
Nov. 22-24, Mon. to Wed.	Engineering inspection trips
Nov. 24, Wed., 12 m.	Household science inspection trip
	Thanksgiving recess begun, departments in Urbana and College of Medicine
Nov. 25-27, Thurs. to Sat.	Thanksgiving recess, College of Dentistry
Nov. 29, Mon., 8 a. m.	Instruction resumed, College of Medicine
12 m.	Instruction resumed, departments in Urbana

Dec. 3, Fri.		Illinois day
	8 p. m.	Iowa-Minnesota-Illinois debates
Dec. 6, Mon.		Senate meeting
Dec. 10, Fri.		Junior promenade
Dec. 14, Tues.		Quarterly meeting of the Board of Trustees
	8 p. m.	Christmas concert
Dec. 18, Sat.		Holiday recess begun, School of Pharmacy
Dec. 21, Tues., 5 p. m.		Holiday recess begun
	6 p. m.	Holiday recess begun, College of Medicine
Dec. 21-23, Tues. to Thurs.		Inspection trip, animal husbandry
Dec. 24, Fri.		Holiday recess begun, College of Dentistry
Dec. 31, Fri., 5 p. m.		Latest day for submission of outlines of theses by candidates for professional degrees in engineering
Jan. 3, Mon., 9 a. m.		Instruction resumed, School of Pharmacy and College of Dentistry
	1 p. m.	Instruction resumed, departments in Urbana and College of Medicine
Jan. 10-22		Short courses in ceramic engineering and high- way engineering
Jan. 17-29		Short course in household science
Jan. 27, Thurs.		Semester examinations begun
Jan. 31-Feb. 4, Mon. to Fri.		Semester examinations, College of Dentistry
		Short course in business
Jan. 31-Feb. 5, Mon. to Sat.		Semester examinations, College of Medicine
Feb. 2-5, Wed. to Sat.		Entrance examinations
Feb. 3, Thurs.		Semester examinations ended

**SECOND SEMESTER, 1915-1916**

FEB. 7, 8, MON., TUES.	REGISTRATION DAYS
Feb. 7, Mon.	Senate Meeting
Feb. 9, Wed., 8 a. m.	Instruction begun
Feb. 12, Sat.	Lincoln day
Feb. 19, Sat.	Last day for rebates in full and for change of study-list without fee
Feb. 22, Tues.	Washington day
Feb. 25, Fri.	Military ball
March 2, Thurs.	University day
March 4, Sat.	Annual band concert
March 10, Fri.	Latest day for removal of incompletes and for removal by seniors of first semester fail- ures
March 14, Tues.	Annual meeting of the Board of Trustees
March 17, Fri.	Midwest League debate
March 22, Wed.	New York Symphony Orchestra
March 31-April 3	Chemistry inspection trip
April 1, Sat., 5 p.m.	Latest day for filing of completed theses by candidates for professional degrees in engineering
April 1-7	Geology inspection trip
April 3, Mon.	Senate meeting

April 8, Sat., 5 p. m.	Latest day for rebates of one-half fees
April 10, Mon.	Animal husbandry inspection trip
April 12, Wed.	New York Philharmonic Orchestra
April 18, Tues.	Railway inspection trip
April 18-21, Tues. to Fri.	Annual meeting of American Chemical Society
April 20, Thurs., 12 m.	Easter recess begun
April 20-26	Geology inspection trip
April 23-30	Easter recess, School of Pharmacy, longer course
April 24, Mon., 8 a. m.	Instruction resumed, College of Medicine
April 25, Tues., 12 m.	Instruction resumed
April 26, Wed.	Commencement, School of Pharmacy
May 5, Fri.	Northern Oratorical League contest
May 10, Wed.	Minneapolis Symphony Orchestra
May 11-13, Thurs. to Sat.	Public School art exhibit
May 12, Fri.	Interscholastic oratorical contest
May 13, Sat.	Interscholastic athletic meet
12 m.	Latest day for the receipt by the Dean of the Graduate School of certified copies of doctors' theses
May, between 15 and 31	Hazelton prize drill
	Annual inspection
	Company competitive drill
May 29, Mon.	Final examinations begun, Colleges of Medicine and Dentistry
May 30, Tues.	Military Day
June 1, Thurs., 8a. m.	Final examinations begun
12 m.	Latest day for acceptance of undergraduate theses
June 2, Fri.	Class day, College of Dentistry
June 3, Sat., 12 m.	Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses
June 5, Mon.	Senate meeting
June 8, Thurs.	Final examinations ended
June 9, Fri.	End of longer course, School of Pharmacy
June 10, Sat.	Class day and alumni meeting, College of Medicine
June 11, Sun.	Baccalaureate address
June 12, Mon.	Class day
8:30 p. m.	Senior ball
June 13, Tues.	Alumni day
10 a. m.	Quarterly meeting of the Board of Trustees
JUNE 14, WED.	FORTY-FIFTH ANNUAL COMMENCEMENT

**SUMMER SESSION, 1916**

JUNE 19, MON.	REGISTRATION DAY
June 20, Tues.	Instruction begun
July 8, 15, 22, 29, Aug. 5, Sat.	Entrance examinations
Aug. 10, 11, Thurs., Fri.	Final examinations.

**FIRST SEMESTER, 1916-1917**

Sept. 11-15, Mon. to Fri.	Entrance examinations
Sept. 12, Tues.	Quarterly meeting of the Board of Trustees
Sept. 13, Wed.	Scholarship examinations for second nominees
SEPT. 18, 19, MON., TUES.	REGISTRATION DAYS
Sept. 18, Mon.	Registration, School of Pharmacy
7 p. m.	Examination for exemption from Rhetoric 1
Sept. 20, Wed.	Instruction begun
4 p. m.	Freshman convocation
Sept. 20-22, Wed. to Fri.	Entrance examinations, departments in Chicago
Sept. 23, Sat.	Assignments in the Brigade posted (Engineering Building, first floor, west end)
Sept. 25, Mon.	Military drill (Mil. 2) and Hygiene lectures (P. T. 1a and 9) begun
Sept. 25-28, Mon. to Thurs.	Examinations for removal of conditions, College of Medicine
Sept. 28, Thurs.	Registration, College of Medicine
Sept. 30, Sat., 5 p. m.	Latest day for rebates in full and for change of study-list without fee
Oct. 2, Mon.	Senate meeting
Oct. 4, Wed.	Registration, College of Dentistry
Oct. 5, Thurs.	Registration closes, College of Medicine
Oct. 14, Sat.	Registration closes, College of Dentistry
Oct. 16, Mon.	Assignment of vacant scholarships in agriculture and household science
Oct. 20, Fri., 5 p. m.	Latest day for removal of "incompletes"
Nov. 6, Mon., 5 p. m.	Latest day for announcement of subjects of all undergraduate and graduate theses
Nov. 17-19, Fri. to Sun.	Alumni home coming
Nov. 18, Sat., 5 p. m.	Latest day for rebates of one-half fees
Nov. 23-25, Thurs. to Sat.	High school conference
Nov. 27-29, Mon. to Wed.	Engineering inspection trips
Nov. 30, Thurs.	Household science inspection trip
Dec. 3, Sun.	Thanksgiving day
Dec. 4, Mon.	Illinois day
Dec. 8, Fri.	Senate Meeting
Dec. 12, Tues.	Junior promenade
Dec. 19, Tues., 8 p. m.	Quarterly meeting of the Board of Trustees
Dec. 21, Thurs., 11 a. m.	Christmas concert
Dec. 30, Sat., 5 p. m.	Holiday recess begun
	Latest day for submission of outlines of theses by candidates for professional degrees in engineering
Jan. 3, Wed., 1 p. m.	Instruction resumed
Jan. 8-20	Short courses in ceramic engineering and highway engineering

Jan. 15-27	Short courses in agriculture and household science
Jan. 25, Thurs.	Semester examinations begun
Jan. 29-Feb. 2, Mon. to Fri.	Semester examinations, College of Dentistry Short course in business
Jan. 29-Feb. 3, Mon. to Sat.	Semester examinations, College of Medicine
Jan. 31-Feb. 3, Wed. to Sat.	Entrance examinations
Feb. 1, Thurs.	Semester examinations ended

**SECOND SEMESTER, 1916-1917**

FEB. 5, 6, MON., TUES.	REGISTRATION DAYS
Feb. 5, Mon.	Senate meeting
Feb. 7, Wed., 8 a. m.	Instruction begun
Feb. 12, Mon.	Lincoln day
Feb. 17, Sat., 5 p. m.	Latest day for rebates in full and for change of study-list without fee
Feb. 22, Thurs.	Washington day
Feb. 23, Fri.,	Military ball
March 2, Fri.	University day
March 3, Sat.	Annual band concert
March 9, Fri., 5 p. m.	Latest day for removal of "incompletes" and for removal by seniors of first semester failures
March 13, Tues.	Annual meeting of the Board of Trustees
March 31, Sat., 5 p. m.	Latest day for filing of completed theses by candidates for professional degrees in en- gineering
April 2, Mon.	Senate meeting
April 5, Thurs., 12 m.	Easter recess begun
April 5-11	Geology inspection trip
April 7, Sat., 5 p. m.	Latest day for rebates of one-half fees
April 10, Tues., 12 m.	Instruction resumed
April 25, Wed.	Commencement, School of Pharmacy
May 12, Sat., 12 m.	Latest day for receipt by the Dean of the Graduate School of certified copies of doctors' theses
May, between 15 and 31,	Hazelton prize drill
May 17-19, Thurs. to Sat.	Annual inspection
May 18, Fri., evening	Company competitive drill
May 19, Sat.	Public school art exhibit
May 30, Wed.	Interscholastic oratorial contest
May 31, Thurs., 8 a. m.	Interscholastic athletic meet
June 1, Fri., 12 m.	Military day
June 2, Sat., 12 m.	Final examinations begun
June 4, Mon.	Latest day for acceptance of undergraduate theses
June 2, Sat., 12 m.	Latest day for receipt by the Dean of the Graduate School of certified copies of masters' theses
June 4, Mon.	Senate meeting

June 7, Thurs.	Final examinations ended
June 10, Sun.	Baccalaureate address
June 11, Mon.	Class day
	Senior ball
June 12, Tues.	Alumni day
JUNE 13, WED.	Quarterly meeting of the Board of Trustees FORTY-SIXTH ANNUAL COMMENCEMENT

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\*Detail effective January 22, 1916.

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HAROLD GOSSEN, B.S., Assistant in Dairy Husbandry  
JOHN FREDERICK GROSS HICKS, B.S., Assistant in Chemistry  
FANNY WILDER HILL, A.B., B.L.S., Reviser in Library Science  
\*SIDNEY MARION HULL, B.S., Assistant in Chemistry  
LAWRENCE CRANE JOHNSON, Ph.D., Research Assistant in Chemistry  
WILLIAM GARFIELD KAMMLADE, B.S.A., Assistant in Animal Husbandry  
WALTER GERALD KARR, B.S., Assistant in Chemistry  
LUTHER EUGENE KENNEDY, A.M., Assistant in Geology  
CINCINNATI GIOVANNI BATTISTE LAGUARDIA, A.B., Assistant in Romance Languages

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\*Resigned, October 15, 1915.

GRACE LINDER, A.B., Assistant in Household Science  
 GEORGE BURR McMILLEN, A.B., Assistant in Economics  
 ALFRED THORPE MORISON, B.S., Assistant in Crop Production  
 WILLIAM ALGERNON KINGSMILL MORKEL, B.S., Assistant in Animal Husbandry  
 CAROLINE RUTH MORRIS, A.B., Assistant in Physical Training for Women  
 ROBERT EMMET MURPHY, Assistant in General Engineering Drawing  
 EDWARD FREDERICK NICKOLEY, A.M., Assistant in Accountancy  
 ALBERT WAFFLE OWENS, B.S., Assistant in Chemistry  
 OLIVE BELLE PERCIVAL, B.S., Assistant in Home Economics Extension  
 WILLIAM EUGENE PICKLER, A.B., Assistant in Botany  
 EDWIN BOOTH POWERS, A.B., M.S., Assistant in Zoology  
 JOHN BENJAMIN RICE, B.S., Assistant in Animal Husbandry  
 FRIEDEL CHAPIN RICHEY, B.S., Assistant in Soil Physics  
 RODNEY POTTER ROBINSON, A.M., Assistant in the Classics  
 WILLIAM KEAN ROBINSON, M.S., Assistant in Bacteriology  
 ALVIN ROMEISER, N.A.G.O., Assistant in Physical Training, in Charge of Fencing  
 WILLIAM EDWARD ROTH, B.S., Assistant in Mathematics  
 FLOYD ELBA ROWLAND, B.S., A.M., Assistant in Chemistry  
 JOHN RAYMOND SHULTERS, A.M., Assistant in Romance Languages  
 GLENN SEYMOUR SKINNER, A.M., Assistant in Chemistry  
 MAYNARD ELMER SLATER, B.S., Assistant in Animal Nutrition  
 FRED WILBUR TANNER, M. S., Assistant in Bacteriology  
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 CARRYL NELSON THURBER, A.B., Assistant in English  
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 WILLIAM ALEXANDER VAN WINKLE, B.S., Assistant in Chemistry  
 QUINTON FORREST WALKER, A.M., Research Assistant in the Graduate School  
 GORDON WATKINS, A.M., Assistant in Sociology  
 \*JANE COULSON WATSON, A.B., Assistant in Romance Languages  
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 TERRENCE ONAS WESTHAEFER, A.B., Assistant in Chemistry  
 GEROLD CARL WICHMAN, A.B., Assistant in Psychology  
 ROY HAROLD WILCOX, B.S., Assistant in Animal Husbandry  
 FRANK ARCHIBALD WYATT, Ph.D., Assistant in Soil Fertility  
 ESTHER YOUNG, A.M., Assistant in Botany  
 JOSEPH ROSSITER ZIESENHEIM, B.S., Assistant in Animal Nutrition  
 SCOTT CHAMPLIN TAYLOR, B.S., Assistant in Chemistry  
 MERTON FORD BANKS, B.S., Assistant in General Engineering Drawing

#### GRADUATE ASSISTANTS

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 HENRY RHODES LEE, A.B., Graduate Assistant in Chemistry  
 THOMAS BYRD MAGATH, M.S., Graduate Assistant in Zoology  
 ANNA SOPHIE ROGERS, A.M., Graduate Assistant in Psychology

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\*First Semester.

ALBERT DURAND SHEPARD, B.S., *Graduate Assistant in Chemistry*  
 RACHEL ANN BAUMGARTNER, A.B., *Graduate Assistant in Zoology*  
 JOHN SHERMAN BEEKEY, A.B., *Graduate Assistant in Mathematics*  
 HARRY JAMES BEATTIE, A.M., *Graduate Assistant in Chemistry*  
 JOHN BERNIS BROWN, B.S., *Graduate Assistant in Chemistry*  
 WILLIAM ROBERT BRUCE, A.B., *Graduate Assistant in Chemistry*  
 CHARLES FRANCIS GREEN, A.M., *Graduate Assistant in Mathematics*  
 CECIL ROBERT GROSS, B.S., *Graduate Assistant in Bacteriology*  
 CLYDE CARNEY HAMILTON, B.S., *Graduate Assistant in Entomology*  
 \*ALFRED MARTIN HEINZELMAN, B.S., *Graduate Assistant in Chemistry*  
 RALPH WILLIAM HUFFORD, A.B., *Graduate Assistant in Chemistry*  
 LOUIS JORDAN, A.B., *Graduate Assistant in Chemistry*  
 JAMES ERNEST KINDRED, A.B., *Graduate Assistant in Zoology*  
 ROBERT HILLS KINGMAN, A.B., *Graduate Assistant in Zoology*  
 RUTH ELIZABETH OKEY, B.S., *Graduate Assistant in Chemistry*  
 JAMES HARRIS OLEWINE, B.S., *Graduate Assistant in Chemistry*  
 MARGARET CAMPBELL PERRY, A.B., *Graduate Assistant in Chemistry*  
 HARRY GLENN PORTZ, B.S., *Graduate Assistant in Chemistry*  
 LORAN OGDAN POTTER, A.M., *Graduate Assistant in Chemistry*  
 ALBERT RICHARD POWELL, A.M., *Graduate Assistant in Chemistry*  
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 LANSING SADLER WELLS, A.B., *Graduate Assistant in Chemistry*  
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 LEONARD FRANCIS YNTEMA, A.B., *Graduate Assistant in Chemistry*

### STUDENT ASSISTANTS

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 †JOSEPH THOMAS HOLTON, *Student Assistant in Chemistry*  
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 CARL ALFRED ZELLE, *Student Assistant in Chemistry*

### ASSISTANTS IN MILITARY SCIENCE

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\*Resigned, October 15, 1915.

†Resigned, December 31, 1915.

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Head of the Department of Anatomy, and Junior Dean

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#### ASSOCIATE PROFESSORS

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WILLIAM ELLIOTT GAMBLE, B.S., M.D., *Associate Professor of Clinical Ophthalmology*

CHARLES EDWARD HUMISTON, M.D., *Associate Professor of Clinical Surgery*

WILLIAM HENRY EURMEISTER, A.B., M.D., *Associate Professor of Pathology*

JOSEPH C BECK, M.D., *Associate Professor of Surgery (Laryngology, Rhinology, and Otology)*

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FRANK DONALD MOORE, M.D., *Assistant Professor of Surgery and Clinical Surgery*

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VICTOR LUPU SCHRAGER, M.D., *Associate in Surgery*  
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JOHN ROSS HARGER, B.S., M.D., *Associate in Surgery and Minor Surgery*  
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ROY LEE MOODIE, A.B., Ph.D., *Associate in Anatomy*  
THOMAS HARRIS BOUGHTON, M.S., M.D., *Associate in Pathology*

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MATTHEW MILLS, LL.B., *Alternate Lecturer on Medical Jurisprudence*  
BERNARD JOHN CIGRAND, M.S., D.D.S., *Lecturer on History of Medicine*

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HENRY EUGENE IRISH, M.D., *Instructor in Pediatrics*  
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WESLEY JOHN WOOLSTON, M.D., *Instructor in Gynecology*  
ARRIE BAMEERGER, M.D., *Instructor in Minor Surgery*  
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LOUIS RUDOLPH, M.D., *Instructor in Physical Diagnosis*

- DAVID ALEXANDER, M.D., *Instructor in Surgery (Orthopedic)*  
 ARCHIE JAMES GRAHAM, M.D., *Instructor in Surgery (Operative)*  
 WALTER CHARLES HAMMOND, M.D., *Instructor in Obstetrics*  
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 FRANKLIN S WILSON, M.D., *Instructor in Clinical Medicine*  
 PHILLIP M DALE, M.D., *Instructor in Clinical Medicine*  
 CARL J S RYDIN, M.D., *Instructor in Neurology*  
 JOSEPH S COHN, M.D., *Instructor in Pediatrics*  
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 EUGENE BERMINGHAM, M.D., *Instructor in Surgery (Laryngology, Rhinology, and Otology)*  
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 CLAYTON S SMITH, B.S., M.S., Ph.D., *Instructor in Physiological Chemistry*  
 FREDERICK HOWARD FALLS, A.B., M.D., *Instructor in Obstetrics and Pathology*  
 THOMAS S JONES, B.F.A., *Artist in the Department of Anatomy*  
 CARL H BARTLING, M.D., *Instructor in Clinical Medicine*  
 ALEXANDER WILLIAM BURKE, M.D., *Instructor in Medicine*  
 HELEN CARNCROSS, M.D., *Instructor in Clinical Ophthalmology*  
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 JOHN CHARLES MATTHEW KRASA, M.D., *Instructor in Medicine*  
 ABRAHAM LEVINSON, M.D., *Instructor in Pediatrics*  
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 PAUL BROWN WELCH, M.D., *Instructor in Medicine*  
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 WALTER H THEOBALD, B.S., M.D., *Instructor in Surgery (Laryngology, Rhinology, and Otology)*

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 KARL ALBERT MEYER, M.D., *Assistant in Clinical Surgery*  
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ROY LEE MOODIE, A.B., Ph.D., Instructor in Anatomy  
CLAYTON S SMITH, B.S., M.S., M.D., Instructor in Chemistry  
ELMER S RIGGS, A.B., A.M., Lecturer on Comparative Anatomy  
W IRA WILLIAMS, D.D.S., Instructor in Operative and Prosthetic Dentistry  
IRWIN WOODWARD BACH, M.S., M.D., Instructor in Bacteriology and Pathology  
EDWARD JOHN KREJCI, D.D.S., Instructor in Prosthetic Dentistry  
MILZOR WILLIAM DEIST, D.D.S., Instructor in Operative and Prosthetic Den-  
*tistry*  
CLIFFORD WEBB WELLS, B.S., M.D., Instructor in Histology  
EDWIN PAUL SWATEK, D.D.S., Assistant in Oral Surgery  
GROVER TRACY, B.S., Assistant in Chemistry  
J CRAIG SMALL, Student Assistant in Chemistry  
HOWARD E CURL, A.B., Student Assistant in Physiology

# THE SCHOOL OF PHARMACY

(Michigan Boulevard and Twelfth Street, Chicago)

## FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

WILLIAM BAKER DAY, Ph.G., *Professor of Materia Medica and Botany, Acting  
Dean, and Secretary*

CLYDE MASON SNOW, Ph.G., *Assistant Professor of Pharmacy*

BERNARD FANTUS, M.D., *Lecturer on Physiology*

ALBERT HENRY CLARK, B.S., Ph.G., *Assistant Professor of Chemistry*

EDMUND NORRIS GATHERCOAL, Ph.G., *Instructor in Pharmacognosy*

HENRY WILLIAM COLSON, Ph.C., *Instructor in Chemistry*

BEN LEE EICHER, Ph.C., *Instructor in Pharmacy*

# STANDING COMMITTEES OF THE FACULTY

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## COMMITTEES OF THE SENATE

*Committee on Educational Policy*—Professor S. A. Forbes (chairman), Professor C. R. Richards, Professor W. C. Bagley, Professor C. G. Hopkins, Professor J. N. Pomeroy, Professor E. C. Schmidt, Professor E. J. Townsend

*Committee on Library*—Professor A. H. Daniels, (chairman), Professor A. P. Carman, Professor J. W. Garner, Professor H. A. Harding, Professor Kenneth McKenzie, Professor William Trelease, Librarian P. L. Windsor

*Committee on Athletics*—Professor G. A. Goodenough (chairman), Professor W. C. Coffey, Director G. A. Huff, Professor C. H. Johnston, Professor C. G. Vernier

## COMMITTEES OF THE COUNCIL

*Committee on Discipline for Men*—Dean T. A. Clark, (chairman *ex officio*), Professor H. J. Barton, Professor E. H. Decker, Professor G. A. Goodenough, Assistant Professor F. H. Rankin, Assistant Professor F. W. Scott

*Committee on Discipline for Women*—Acting Dean M. J. Kyle, (chairman *ex officio*), Miss F. R. Curtis, Dr. Q. L. Shepherd

*Committee on Student Organizations and Activities*—Assistant Professor R. E. Heilman (chairman), Dean T. A. Clark (*ex officio*), Acting Dean M. J. Kyle (*ex officio*), Assistant Professor A. W. Jamison, Assistant Professor W. F. Schulz

*Committee on Student Publications*—Assistant Professor F. W. Scott (chairman), Associate Professor W. L. Burlison, Assistant Professor W. S. Robertson

*Auditing Committee for Student Organizations and Publications*—Professor O. A. Leutwiler (chairman), Assistant Dean A. R. Warnock, Mr. H. T. Scovill

*Advisory Committee on Home-Coming*—Professor S. W. Parr (chairman), Dean O. A. Harker, Director B. W. Benedict

*Committee on Students' Progress*—Dean T. A. Clark (chairman), Acting Dean M. J. Kyle, Assistant Dean H. V. Canter, Assistant Dean H. W. Miller, Assistant Professor F. H. Rankin, Professor W. G. Hale

*Committee on Loan Funds*—Dean T. A. Clark (chairman), Assistant Dean H. V. Canter, Assistant Dean H. W. Miller

*Committee on Students' Hospital Benefit Fund*—Dean T. A. Clark

*Committee on Accredited Schools*—Professor E. J. Townsend (chairman), Professor H. A. Hollister, Associate Professor J. B. Shaw, Assistant Professor H. G. Paul, Registrar C. M. McConn

*Committee on Appointment of Graduates*—Professor W. C. Bagley (chairman), Professor O. E. Lessing, Professor H. A. Hollister

*Committee on Catalog*—Professor H. B. Ward (chairman), Professor A. P. Carman, Assistant Professor F. W. Scott, Registrar C. M. McConn

*Committee on Transfer of Credits*—Dean K. C. Babcock (chairman), Professor H. A. Hollister, Professor L. M. Larson, Professor G. A. Goodenough, Dr. W. E. Joseph, Registrar C. M. McConn

PART I  
GENERAL INFORMATION



## LOCATION

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The University of Illinois is situated in Champaign County, about fifty miles northeast of the geographical center of the State. It is 126 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis.

The campus of the University lies just within the corporate limits of the city of Urbana and is bounded on the west by the city of Champaign. The two municipalities form one community of about twenty-four thousand inhabitants. The city halls of the two towns are two miles apart, the campus half way between. The railway, express, telegraph, and telephone services of both cities are available for the University. Mail for the institution itself should be directed to Urbana to insure prompt delivery. The Urbana postoffice maintains a sub-station at the University, located in the Library Building.

### Urbana-Champaign

The cities of Urbana and Champaign are in the heart of the "Corn Belt" and form the business and social center of a rich farming community.

In matters pertaining to health, conditions are good. There is a hospital within three blocks of the campus, in which students may be cared for at moderate expense.

The University has no dormitories, but the number of boarding houses is large, and there are sixty-three residence halls erected by fraternities, sororities, and local clubs.

There are thirty churches, representing eleven denominations, and a number of students' religious associations, leagues, and guilds, including Young Men's and Young Women's Christian Associations.

Under a special State law, the liquor traffic has been barred from all territory within a radius of four miles from the University.

### Railway Connections

The University is connected with neighboring cities in Illinois, including Bloomington, Danville, Decatur, Peoria, and Springfield, and also with St. Louis, by the electric interurban lines of the Illinois Traction System.

It may be reached from Chicago and the north and from points in the south by the Illinois Central Railroad, being on the direct line from Chicago to Cairo and New Orleans. It is joined to the east and the west by the Peoria & Eastern Division of the "Big Four" route, as well as by the division of the Wabash Railway which connects Kansas City and St. Louis with Detroit and Buffalo.

The station of the Illinois Central Railroad is in Champaign. The Wabash and "Big Four" have stations in both Champaign and Urbana. There are several hotels in Champaign and Urbana within easy reach of the University, the Beardsley and the Inman in Champaign and the Columbian in Urbana being the largest.

## HISTORY

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### *1862. The Morrill Land Grant*

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, \* \* \* \* \* in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about \$610,000 and deferred payments on land contracts amounting approximately to \$35,000.

### *Location chosen*

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and \$100,000 in county bonds. To this the Illinois Central Railroad added \$50,000 in freight.

### *1867. Incorporation*

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, *ex officio* members, and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an *ex officio* member of the Board and the presiding officer of both the Board of Trustees and the Faculty. (See also 1873 and 1887 below.)

### *1867. Dr. Gregory Regent*

On March 12, 1867, John Milton Gregory, LL.D., was elected Regent of the University. On April 1, 1867, Dr. Gregory accepted the position and entered upon his duties. He served as Regent until September 1, 1880.

### *1868. The University opened*

The University opened on March 2, 1868. The number of students enrolled was about fifty; the faculty consisted of the Regent and two professors. During the first term another instructor was added, and the number of students increased to 77—all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

*1868-9. The first laboratories*

During the autumn of 1868 a chemical laboratory was fitted up; and laboratory work in botany was begun the following year.

*1870. Pioneer shop instruction*

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the *first shop instruction* given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

*1870. Women admitted*

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

*1873. First reorganization of the Board of Trustees*

At this time the number of members was reduced from thirty-two (see 1867 above) to eleven—the Governor and the President of the State Board of Agriculture, *ex officio*, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also 1887 below.)

*1877. Authority to confer degrees received*

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877 the legislature gave the University authority to confer degrees and issue diplomas.

*1880-81. Dr. Peabody Regent*

In June, 1880, Regent Gregory's resignation was accepted to take effect September 1, 1880, and Selim Hobart Peabody, A.B., Ph.D., Professor of Mechanical Engineering and Physics, was made Regent *pro tempore*. At the next annual meeting, in March, 1881, he was elected Regent.

*1885. Change of name*

In this year the General Assembly changed the name of the institution from the *Illinois Industrial University* to the *University of Illinois*.

*1885. The State Laboratory of Natural History transferred to the University*

See page 431.

*1887. Second reorganization of the Board of Trustees*

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an *ex officio* member. There are now, therefore, three *ex officio* and nine elective members. (For the previous organization of the Board see 1867 and 1873 above.)

*1887. The Agricultural Experiment Station established at the University*

See page 425.

*1890. Additional Federal endowment*

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862. Under this enactment each such college or university received the first year \$15,000, the second year \$16,000, and in each succeeding year a sum larger by \$1,000 than the amount of the preceding year, until the amount reached \$25,000; this sum was to be paid yearly thereafter.

*1891. Dr. Burrill Acting Regent*

In June, 1891, Regent Peabody's resignation was accepted, to take effect September 1, and in August Thomas Jonathan Burrill, A.M., Ph.D., Professor of Botany and Horticulture, was appointed Acting Regent. Dr. Burrill served in this capacity until September, 1894.

*1892. The Graduate School*

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

*1894. The Summer Session*

The first Summer Session of the University was authorized by a vote of the Trustees on March 3, 1894, and was opened in June of that year.

*1894. Dr. Draper President*

On April 13, 1894, Andrew Sloan Draper, LL.D., was elected Regent. He accepted May 10, 1894. On August 1 his title was changed to President. Dr. Draper entered upon his duties on August 1, 1894. He served until June, 1904.

*1896. The School of Pharmacy*

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois.

*1897. The College of Medicine*

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been going on for several years, were concluded by the Board of Trustees March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. (The College of Medicine was discontinued on June 30, 1912, but was re-opened on February 12, 1913.)

*1897. The School of Music*

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and enlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

*1897. The State Water Survey authorized*

See page 433.

*1897. The Library School*

In 1897 the School of Library Economy, which had been established in 1893 at the Armour Institute of Technology in Chicago, was transferred to the University, the Director of that school was appointed Librarian of the University Library, and the Library School was opened.

*1897. The College of Law*

Pursuant to an action of the Board of Trustees, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The

course of study covered two years, in conformity with the then existing requirements for admission to the bar of Illinois. In the following November, however, the Supreme Court of the State announced rules relating to examinations for admission to the bar which made three years of study necessary, and the course of study in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to *College of Law*.

1899. *The State Entomologist's Office permanently established at the University*  
See page 432.

1900. *Courses in Business Administration*

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accordance with that action, the Trustees approved the organization of the Courses in Business Administration. (See also 1915 below.)

1901. *The College of Dentistry*

In accordance with an action taken by the Board of Trustees on March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to *College of Dentistry* on April 27, 1905. (The College of Dentistry was discontinued on June 30, 1912, but was re-opened on October 1, 1913.)

1903. *The Board of Examiners in Accountancy created*

See page 436.

1903. *The Engineering Experiment Station established*

See page 429.

1904. *Dr. James President*

On March 9, 1904, President Draper's resignation was accepted, to take effect July 1. On August 23, 1904, Edmund Janes James, Ph.D., LL.D., was elected President. He accepted on August 26, 1904, and entered upon his duties in the fall of that year.

1905. *The School of Education*

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers.

1905. *The State Geological Survey established*

See page 434.

1906. *Adams Fund*

This fund was created by an act of Congress dated March 16, 1906, and provides for an appropriation of \$5,000 for the year ending June 30, 1906, and an increase of \$2,000 a year for five years. The present appropriation to the University under the Adams Act, is, therefore, \$15,000 a year. Its use is limited to the necessary expenses of original research and experimental work in agriculture.

1907. *Nelson Fund*

This fund was created by an act of Congress dated March 4, 1907, and carried with it an appropriation of \$5,000 for the fiscal year ending June 30, 1908, and an annual increase of \$5,000 for four years. The present appropriation to the University under the Nelson Act is, therefore, \$25,000 per year. Its uses are identical with those of the Morrill Fund.

*1906-7. The School of Railway Engineering and Administration*

On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supplementing that action, it established the School of Railway Engineering and Administration.

*1906-7. The Graduate School organized as a separate faculty*

The General Assembly appropriated \$50,000 for the Graduate School, and the Executive Faculty of that school was organized.

*1911. The Mill Tax*

The General Assembly passed a law providing that in the year 1912, and annually thereafter, the proceeds of a tax of one mill for each dollar of the assessed valuation of the taxable property of the State should be set apart as a fund for the maintenance of the University.

*1911. Cooperative Investigation of Illinois Coal Problems*

See page 437.

*1912. The Colleges of Medicine and Dentistry discontinued*

The Colleges of Medicine and Dentistry were discontinued on June 30, 1912.

*1913. The Colleges of Medicine and Dentistry reopened*

On February 12, 1913, the Board of Trustees accepted the gift of the capital stock of the College of Physicians and Surgeons, donated to the University by the alumni and other friends of medical education in Chicago, and the College of Medicine was reopened.

The College of Dentistry was reopened on October 1, 1913.

*1913. The College of Liberal Arts and Sciences*

In this year the College of Literature and Arts and the College of Science were united to form the College of Liberal Arts and Sciences.

*1915. The College of Commerce and Business Administration*

The Courses in Business Administration, organized in 1900, were erected into a separate College of Commerce and Business Administration.

# EQUIPMENT

## BUILDINGS AND GROUNDS

The land occupied by the University embraces 235 acres, besides a farm of 865 acres. There are at the present time some forty-five buildings on the campus.

### Liberal Arts Group

*University Hall* (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms and offices.

*Lincoln Hall* (erected 1911) has a frontage of 230 feet. The exterior is brick, stone, and terra cotta. This building provides for the advanced work of the departments of the classics, English, Romance languages, Germanic languages, history, economics, education, political science, sociology, and philosophy. The first three floors provide, in addition to the ordinary class and consultation rooms, seminar libraries and conference rooms. On the fourth floor are research rooms and two museums, the Museum of Classical Art and Archeology, and the Museum of European Culture.

### General Science Group

*Natural History Hall* (old part erected 1892; addition 1909) covers a ground area 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoology, physiology, geology, and mathematics, together with the offices and equipment of the State Geological Survey, and the State Natural History Survey, and the office of the State Entomologist. A fireproof museum 51 feet by 63 feet in size, equipped with fireproof and dustproof cases, occupies the center of the building.

*The Laboratory of Physics* (erected 1909) is a three-story fire-proof brick building trimmed with Bedford limestone. The length is 178 feet and the depth of the wings is 125 feet. The lecture room has a seating capacity of two hundred sixty-two. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing contains about thirty smaller laboratories for advanced experimental work. The blue print department of the University occupies rooms on the top floor of the building. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building.

*The Chemistry Laboratory* (original structure erected 1901-2; addition 1914-15) is a brick building. The original structure is of slow burning construction, and the addition, which will have five stories available, fireproof. The total available floor area is about 164,000 square feet. The ground plan is a hollow square, the extreme dimensions of which are 230 feet along the front, and 200 feet along the sides. The center court contains the lecture

amphitheatre, which seats 390. The side wings of the building contain the general student laboratories, while the center portions of both old and new structures are occupied by offices, class and seminar rooms, library, museums, supply rooms, and graduate research laboratories. The main store room is in the basement under the lecture room. In this building are also located the offices and laboratories of the State Water Survey and the department of bacteriology.

*The Astronomical Observatory* (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter. An adjacent building with a 15-foot dome was erected in 1914.

*The Entomology Building* (erected 1905 for the use of the State Entomologist and his staff) is a two-story building 48 by 20 feet, with basement storerooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. It contains the office of horticultural inspection, a stenographer's room, rooms for the assistant inspectors and insectary assistants, and a large fire-proof vault. The glass-covered wings are equipped for experimental entomology and life-history studies.

*The Ecological Laboratory* (remodeled and reconstructed in 1914 from a residence at 1210 Springfield avenue) is equipped for the experimental study of the relations of animals to environment.

*The Botany Annex* (erected 1914) is a greenhouse laboratory covering 5,000 square feet, divided into compartments that are severally provided with devices for controlling humidity and temperature within close limits for exact experimentation in the fields of plant physiology and pathology. To this laboratory is attached a reconstructed two-story dwelling, giving working and class rooms for use in connection with the experiments conducted under glass.

*The Vivarium* (erected 1915-16) occupies the block south of the Illinois Traction System tracks, between Wright and Sixth streets, the main facade of the building being toward Healey street. The scheme involves a main building containing eight laboratories, one office, and store rooms, with supplementary greenhouses at each end, and a head house serving two greenhouses, together with two screened houses. The main building is a brick structure, two stories high, connected to the head house by a one story passage from the main corridor. The building is occupied by the departments of zoology and entomology.

#### **Commerce and Business Administration**

*The Commerce Building* (erected 1912) is a fireproof building three stories high, 153 feet on the front and 60 feet deep, with a one-story annex containing a lecture room 48 feet square. The building has a total floor area of about 29,000 square feet; it provides class rooms, offices, and laboratories for the work in business administration. The exterior first story finish is buff Bedford stone; the second and third stories are of brick with carved stone trimmings and cornice. The roof is of tile, and the interior trim is of dark oak. The Administration Building (see page 56) is a second unit of this building and will eventually be occupied by this College.

#### **Engineering Group**

*Engineering Hall* (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a

floor area of 47,000 square feet. The first and second floors are occupied by the offices and recitation rooms, and the instrument and drafting rooms of the departments of civil engineering and municipal and sanitary engineering. The engineering lecture room, on the second floor, has a seating capacity of two hundred twenty-five. The third floor is occupied by the offices of the Dean of the College of Engineering and Director of the Engineering Experiment Station, and by offices, recitation, and drafting rooms of the department of mechanical engineering. A portion of the third floor and all of the fourth floor are occupied by the department of architecture.

*The Electrical Engineering Laboratory* (erected 1898) is a two-story brick building with floor area of 18,000 square feet. The basement contains the departmental shop, the storage battery room, the electric furnace room, and rooms for electrical research. The first floor contains the undergraduate laboratory, the instrument room, the high potential laboratory, and the drafting, lecture, and recitation rooms. The second floor contains the photometric laboratory, the offices, the departmental library, and a room used by the Electrical Engineering Society.

*The Mechanical Engineering Laboratory* (erected 1905) is a brick building with a frontage of 120 feet, a total depth of 182 feet, and a floor area of 24,000 square feet. The front section is two stories high, and contains offices, lecture and computation rooms, and an instrument room. Back of this are three bays. The middle bay is provided with a concrete testing floor and a 10-ton three-motor traveling crane of 38-foot span. The north bay contains a 5-ton traveling crane and is used for laboratory work in connection with the departments of civil engineering and theoretical and applied mechanics.

*The Laboratory of Applied Mechanics* (erected 1901-2) is a brick building having a floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing the hydraulics laboratory.

*The Ceramics Laboratory* (erected 1910) is a two-story brick building in which are provided a general laboratory, plaster room, pottery room, machine room, drawing room, library, recitation rooms, chemical laboratory, and office.

*The Ceramics and Mining Laboratory* (erected 1912) is a one-story building forming a wing connected with the Ceramic Engineering Building, and having a floor area of 11,200 square feet. It contains a kiln and furnace room, having an area of 4300 square feet, a mining engineering laboratory of 3600 square feet, and a chemistry laboratory for the department of mining engineering. There are also offices and class rooms for the department of ceramic engineering, and a Mine Rescue Station, equipped and arranged for training men in the methods of mine rescue work.

*The Ceramic Engineering Building* (erected 1915-16) is a three story structure, 188x65 feet, of fireproof construction, built of texture brick and polychrome terra cotta. The front of the building is decorated with colored tile panels. The roof is of Spanish tile, and the floor of the halls and corridors of clay tile. The structure is intended to present modern achievement in the use of ceramic structural materials. The third floor is occupied by the State Geological Survey and about one-third of the first floor by the department of applied mechanics. The main portion of the building is utilized by the recitation rooms, laboratories, and offices of the department of ceramic engineering.

*The Locomotive Testing Laboratory* (erected 1912) is a fireproof building with brick walls, 117 feet long and 42 feet wide, connected by a spur with the Illinois Traction System tracks. It houses a locomotive testing plant, which consists of supporting wheels on which rest the drivers of the locomotive to be tested, a dynamometer to which the locomotive drawbar is attached, and which measures the tractive force exerted by the locomotive, water brakes for absorbing the power developed by the locomotive, and other auxiliary apparatus. The exhaust gases pass through a "transite" (or asbestos board) duct to a large fan which forces them through a reinforced concrete cinder separator; the separator removes the cinders and discharges the gases into the air through a brick stack eight feet in height.

*The Transportation Building* (erected 1912) is a three-story fire-proof building of brick trimmed with stone. The dimensions of the building are 65x189 feet and the total floor area is 34,225 square feet. The first and second floors of the building are occupied by the departments of railway and mining engineering, and the third floor by the department of general engineering drawing.

*The Metal Shops* (erected 1902) occupy a one-story brick building with a floor area of 12,000 square feet, containing four office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a 20-horsepower electric motor. A 3-ton traveling crane of 10 foot span covers the center of the floor for the entire length.

*The Wood Shop* (erected 1901-2) and the *Foundry* (added 1904) occupy a brick building which has a floor area of 16,000 square feet. The part of the building devoted to the wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures and exhibition purposes. The part devoted to the foundry has a molding floor 35x80 feet, traversed by a 5-ton traveling crane, and a basement room for the storage of materials.

#### Agricultural Group

*The Agricultural Building* (erected 1900) consists of four separate structures, built around a court and connected by corridors. The court was enclosed in 1912 and divided into five large class rooms. The main building, three stories in height, contains offices, class rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, and horticulture; the chemical laboratory of the Experiment station; administration rooms; and assembly room (Morrow Hall) with a seating capacity of 500. The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for class rooms and laboratories. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of about two acres.

*The Agronomy Building* (erected 1904-5) is a brick and slate structure 50 by 100 feet. It contains a field laboratory and storage room for crop work.

*The Farm Mechanics Building* (erected 1906-7) is a three-story brick structure, containing class rooms, offices, lecture rooms, drafting room, library, laboratories, and tool and storage rooms. The third floor, which is reached by an elevator, furnishes storage room for the greater part of \$16,000 worth of farm machinery, lent the College by various manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment, make possible the assembling, testing, and adjusting of all the important machines used in farm operations.

*The Stock Pavilion* (erected 1913) is a fireproof building 54 feet high on the front and 148 feet deep with circular ends 92 feet in diameter and 20 feet high. The total ground area is 30,000 square feet, and the show arena is 216 feet long and 65 feet wide. Seats of concrete provide accommodations for 2000. Arrangements are to be made providing for a division of the arena into three parts, giving three separate judging rooms for instructional purposes. The building also contains class rooms and offices. Stabling will be provided in a separate structure. The exterior is of brick and terra cotta, renaissance in design, the frieze being enriched with medallions of animal heads.

*The Agronomy Greenhouse* (erected 1900, rebuilt 1912) consists of two glass structures covering a total floor space of 6500 square feet, and a service building equipped with research and photographic laboratories.

*The Agronomy Barn* (erected 1915) is a wooden structure 36 by 70 feet, designed as a service and storage building for the field work of the department of agronomy.

*The Animal Husbandry Cattle Feeding Plant* has a capacity for feeding 150 steers at a time. It consists of open and closed sheds with paved lots adjoining, with a storage barn 44 by 72 feet and an experimental silo.

*The Beef Cattle Building* (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 feet; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

*The Sheep Barn* is a wooden structure consisting of a main barn 36 by 90 feet, and a shed, opening to the south, 25 by 100 feet in size. A 6-foot aisle, lined by pens on each side, runs through the center of the barn. This building besides accommodating the University flock is used for experimental work. Its location and construction insures dry footing and ample light and ventilation throughout the year.

Other buildings for the accommodation of live stock are the horse barn, the piggery, and two large barns on the South Farm.

*The Experimental Dairy Barns* (erected 1912) comprise a round barn 70 feet in diameter with a reinforced concrete silo in the center, a semi-detached rectangular structure 40 by 70 feet with a Grout silo adjacent, and a small dairy house and shop 26 by 32 feet. The barns are of frame construction on brick walls with solid floors of the mill type of construction, and contain feed rooms, hay lofts, and other accommodations for the experimental dairy herd. The dairy house is of frame construction, two stories in height, and contains office, shop, coal room, dairy room, and four sleeping rooms for employees.

*The Cattle Feeding Plant* (erected 1915-16) is of brick and wood construction, located on the axis of Fourth street, south of the "Farm Lane". The lower part is a fireproof structure, 300 feet long, open to the south. The feeding lots are paved with brick and extend out some 30 feet from the building line. The plant is used as a storage place for feed for the animal husbandry department, and the upper stories are constructed as an elevator with large grain bins, where several tons of grain can be elevated, preparatory to grinding, shipping, or feeding. In connection with the plant is a corn crib of the capacity of 12,000 bushels. The four silos to the north are 16x70 and open into the feed room of the plant. They are of three different materials: tile, concrete, and brick.

*The Genetics Building* (erected 1915-16) is a one-story brick structure (located on Farm Lane and Mathews Avenue) housing the laboratories, offices, and animal rooms of the genetics department of the Agricultural College. The work carried on in this building is done principally by graduate students.

*The Horticulture Building* (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests, and contains sorting rooms, storage rooms, and a laboratory for the mixing of spraying materials and other operations in connection with the horticultural work.

*The Horticulture Greenhouse Group* (erected 1912-13) includes (1) a floricultural group and (2) a vegetable and plant breeding group.

(1) *The Floriculture Greenhouse Group* (erected 1912-13) consists of a two-story and basement service building 93 by 37 feet, and the following glass structures: four houses each 105 by 28 feet, three houses each 105 by 35 feet, one corridor house 139 by 10 feet, one storage house 50 by 12 feet, and a palm house 80 by 40 feet. The service building is of hollow tile and cement construction, and contains laboratories, lecture room, herbarium room, offices, and seminar room, as well as potting, storage, and work rooms.

(2) *The Vegetable and Plant Breeding Greenhouse Group* (erected 1912-13) consists of a glass house for vegetable growing 105 by 28 feet, two houses for plant breeding each approximately 80 by 30 feet, a wire house 80 by 30 feet, and a two-story and basement service building 82 by 36 feet, containing laboratories, work rooms, class rooms, offices, and storage rooms. The type of construction of this building is the same as that of the floriculture service building.

### **Law Building**

*The Law Building* (erected 1878; remodeled 1902 and 1912) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room. In the basement are the lockers, the students' reading room, and a court room for the Law Clubs.

### **Buildings for General University Use**

*The Administration Building* (erected 1914-15) is a three-story and basement fireproof building of brick and stone. It is 153 feet long and 66½ feet deep with a one-story annex, 48 feet by 42 feet, with a total floor area of 36,000 square feet; it contains the rooms of the Board of Trustees and the offices of the President, the Registrar, the Comptroller, the Supervising Architect, the Dean of Men, the High School Visitor, the Adviser to Foreign Students, and the Alumni Association, and the Information and Stenographic Bureau. This building is the second unit of the Commerce Building, and will eventually be occupied by that College.

*The Library Building* (erected 1896-7; an addition to the stack room erected 1914) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 141 feet, with a tower 132 feet high. The first floor, or

basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station Postoffice. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, faculty study room, and the office of the librarian and assistant librarian. The five-story book stack is a rear wing to the building, separated from it by a fireproof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four older colleges of the University—Literature and Arts, Science, Agriculture, and Engineering.

*The Auditorium* (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200, a memorial vestibule, and a four manual organ. All general University exercises and convocations are held in this building.

*The Men's Gymnasium* (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. This floor contains also the general locker room, which is fitted up with all-metal lockers, and with shower bath, and steam baths; rooms for the University athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physical director and the instructors in athletics. The entire second floor is one room, fitted up with modern appliances for gymnastic exercises. The third floor contains an elevated running track, 15 laps to the mile, banked on the turns to secure speed and comfort in running.

*The Gymnasium Annex* (erected in 1889-90) has a clear floor space of 15,000 square feet in one hall.

*The Armory* (erected 1914-15) comprises a drill room with a clear area of 200 x 400 feet and a height of 98 feet at the center, the roof being carried by fourteen three-hinged steel arches. The sides are of hollow tile and the ends, supported by columns, are of steel, glass, tile, and concrete, with wood frames and sashes. The drill floor is of sufficient area to permit the maneuvering of an entire battalion of the cadet brigade. Provision has been made for the addition of a balcony around the drill floor with seats for 3,000 and for the addition of three-story facades along the sides flanked by towers at each end. This will provide space for company rooms, locker rooms, shooting tubes, and class rooms.

*The Woman's Building* (erected 1905; addition 1912) is in the new England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the women's gymnasium. On the lower floor there are swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of household science, and the south wing provides rooms for the social life of the women students. The addition is a three-story fireproof building with basement. It is 200 feet long on the front and 83 feet on each connecting wing, having 43,000 square feet of floor area. It has a large colonnade with towers on the front and two smaller colonnades on the north and south of the inner court. The addition is similar to the old building in finish and supplements the working space of the depart-

ments using it. It has two halls for literary societies and a modern flat on the upper floor, and an institutional kitchen and large dining room on the second floor. There are also offices for the Dean of Women and the Director of the Courses in Household Science, laboratories, social rooms, and space for the expansion of gymnasium work.

#### The President's House

*The President's House* (erected 1896) is a three-story frame building, in the colonial style. The first story is designed primarily for entertaining; large reception and dining parlors are so arranged as to open together into a central corridor. The second and third stories provide library and living rooms.

#### Service Buildings

*The Central Heat and Power Plant* (erected 1902; addition 1910) is 55 by 120 feet. It contains boilers aggregating 1,800 horsepower. A supplemental boiler and power plant, designed ultimately to carry the load of the present station, is equipped with boilers of 1,000 horsepower. These two stations furnish steam for heating and power to all buildings on the campus. A power plant containing a 250-kilowatt Allis-Chalmers direct connected steam engine and dynamo, a 125-kilowatt direct connected Westinghouse engine and generator, and a 100-kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick and concrete tunnels and clay and concrete conduits. Altogether there are now 6,275 feet of tunnels and 3,800 feet of conduit for the distribution of steam, and 7,000 feet of conduit for the distribution of electricity. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

*The Pumping Station* of the University water-works is a brick building, 38 by 73 feet, connected with the central heating station. Four 8-inch wells, 145 feet deep, and one 12-inch well 148 feet deep supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental work, and also to vary the working conditions in the adjacent hydraulics laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and chemical wagon.

### BUILDINGS IN CHICAGO

*The College of Medicine Building*, in which are housed all the departments except that of anatomy, is a brick and stone structure two hundred feet long by one hundred and ten feet deep and five stories high, fronting on four streets. The building contains three lecture rooms with a seating capacity of two hundred each; a clinical amphitheater with a seating capacity of over three hundred; an assembly hall with a seating capacity of seven hundred; besides recitation rooms. It also contains laboratories for physiology, chemistry, *materia medica*, therapeutics, and microscopical and chemical diagnosis, each accommodating from fifty to one hundred students at a time.

A three-story annex to the main building contains the laboratories used by the departments of pathology, bacteriology, and chemistry. All of these

laboratories have outside light and are furnished with work tables, desks, lockers, and the necessary apparatus. There is a supply of microscopes, lenses, and oil immersions, and a projection apparatus for the illustration of lectures by means of stereopticon views.

The College of Dentistry is housed in a six-story building containing three amphitheaters, recitation rooms and lecture rooms, laboratories, dissecting rooms, a clinical operating room, and an infirmary. A parlor is provided for the use of the women students. This building adjoins that of the College of Medicine.

The School of Pharmacy leases the four upper floors of a brick structure five stories in height, having a frontage of fifty feet on Michigan avenue and one hundred and seventy feet on Twelfth street.

### LABORATORIES

The University maintains in the departments at Urbana thirty-one laboratories. The following list shows the buildings in which these are located:

#### General Science Laboratories

Botany—Natural History Hall  
Chemistry—Chemical Laboratory  
Entomology—Natural History Hall  
Geology—Natural History Hall  
Physics—Laboratory of Physics  
Physiology—Natural History Hall  
Psychology—University Hall  
Zoology—Natural History Hall

#### Engineering Laboratories

Cement—Mechanical Engineering Laboratory  
Ceramics—Ceramics Laboratory  
Electrical Engineering—Electrical Engineering Laboratory  
Foundry—Wood Shop  
Forging—Metal Shops  
Hydraulics—Laboratory of Applied Mechanics  
Locomotive—Locomotive Laboratory  
Machine Construction—Metal Shops  
Materials Testing—Laboratory of Applied Mechanics  
Mechanical Engineering—Mechanical Engineering Laboratory  
Mining—Mining Engineering Laboratory  
Mine Dust and Gas—Natural History Hall  
Roads—Mechanical Engineering Laboratory  
Woodworking—Wood Shop

#### Special Research Laboratories

<i>Agricultural Experiment Station—</i>	<i>Agricultural Building</i>
Bacteriological laboratory	
Chemical laboratory	
Physical laboratory	

<i>Animal Husbandry</i> —		
Genetics Laboratory		Genetics Building
<i>Geology</i> —		Natural History Hall
Laboratory of economic geology		
<i>State Entomologist's Office</i> —		Entomology Building
<i>State Laboratory of Natural History</i> —		Natural History Hall
<i>State Water Survey</i> —		Chemical Laboratory
Laboratory for sanitary water analysis		
<i>Zoology and Entomology</i> —		Vivarium
Research laboratory		

### LIBRARIES

(For the Library Staff see page 33.)

The University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana and also the libraries of the College of Medicine and the School of Pharmacy in Chicago.

On December 1, 1915, the contents of the several libraries were as follows:

	Volumes	Pamphlets	Maps
In Urbana:			
General library, including departmental collections .....	321,097	36,200	1,752
State Laboratory of Natural History library .....	8,238	39,266	82
State Geological Survey library.....	1,700	4,500	1,017
In Chicago:			
College of Medicine library.....	15,472	3,000	....
Pharmacy library .....	2,100	600	....
Total in the University .....	348,607	83,566	2,851

The Library is housed, for the most part, in the Library building, and is for the use of the whole University. The officers of instruction and administration of the University, the graduate students, and the members of the senior class have direct access to the shelves; other students may have this privilege upon the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition advanced students have the use of the seminar libraries. Over 3,000 periodicals are currently received.

As a part of the Library are included several special collections: The *University of Illinois collection*, including printed material illustrating the history of the University: about 300 volumes. *College Publications collection*, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions: about 5,200 volumes. *Thesis collection*, a complete file of the original copies of the theses presented for graduation from the University of Illinois, bound and filed by years: 2,100 volumes. The *Collection of School Reports*, a catalogued collection of school reports, courses of study, and other documents published by public school authorities throughout the United States. The *Dziatzko collection of Library Economy*, bought in 1905, the entire library of Karl Dziatzko, librarian of Göttingen University: 300 volumes, 250 pamphlets. The *Dittenberger Collection of the Classics*, bought in 1907, the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle: 5,600 items. The *Heyne collection* purchased by the University

in 1909, the philological library of Professor Moritz Heyne of the University of Göttingen: about 5,000 items, principally on German philology and literature. The *Karsten collection*, principally on French and German philology and literature, the library of the late Professor Gustaf E. Karsten, presented by Mrs. Eleanor G. Karsten. The *Gröber collection*, purchased in 1912, the entire library of the late Professor Gustav Gröber, of Strasburg: 6,300 titles, principally on the Romance languages. The *Vahlen collection*, purchased in 1913, the entire classical library of the late Professor Johannes Vahlen, of Berlin: 10,000 volumes. The *Aron collection*, purchased in 1913, the pedagogical library of the late Dr. R. Aron, of Berlin: 20,000 volumes. The *Carl Martin James collection*, about 1,000 volumes relating to statistics and similar subjects, presented in 1915 by President Edmund J. James. The *D. C. Greene collection*, presented in 1915 by Professor E. B. Greene: 219 volumes of books and newspapers relating to Japan.

A number of seminar and departmental collections are maintained in various buildings on the campus, including the six seminars in Lincoln Hall; these libraries do not necessarily contain all the books in the respective subjects, but are in most instances reference collections for the use of graduate students and advanced undergraduate students in the departments using the respective buildings. The principal departmental libraries and reading rooms are the following:

Name of Library	Location	Volumes
Philosophy, Psychology, and Education	Lincoln Hall	10,800
Classics	Lincoln Hall	15,800
Modern languages	Lincoln Hall	19,700
English	Lincoln Hall	16,500
History and Political Science	Lincoln Hall	21,800
Economics and Sociology	Lincoln Hall	17,200
Natural History	Natural History Building	*19,700
Law	Law Building	19,000
Commerce Reading Room	Commerce Building	1,300
Architecture	Engineering Building	3,600
Agriculture Reading Room	Agricultural Building	5,300
Chemistry	Chemistry Building	5,000
Physics	Physics Building	1,100
Mathematics	Natural History Building	3,600
Railway Engineering and Mining	Transportation Building	1,000

*Mason Library of Western History.* The library of western history collected by Edward G. Mason, Esq., long president of the Chicago Historical Society, is in the Public Library of the city of Champaign, and is accessible to students in the University.

#### Library Regulations

The General Library is primarily for free reference use; any student or citizen of the State may use the books in the general reading rooms. The privilege of drawing books for use outside the building is accorded to all officers of instruction and government, to all registered students, and to other accredited persons. Books not reserved for classes may be borrowed for home use for two weeks and may be renewed for two weeks more if not specially restricted or called for. All books are subject to recall at any time when needed for university work.

\*Including the State Laboratory collection.

General reference books, books reserved for classes, all general periodicals, and certain other groups of books are to be consulted in the reading rooms only. They may not be loaned from the Library except when the reading rooms are closed. They must then be returned by the time the Library next opens.

Books from the stack which are not returned on time are subject to a fine of two cents a day. Books from the reference, reserve, and periodical shelves, as well as some special collections, are subject to a fine of twenty-five cents for the first hour and five cents for each additional hour if kept overtime. Books recalled for university work must be returned at once upon receipt of the notice. If not returned within two days after notice is mailed a fine of twenty-five cents a day is charged. All books lost or damaged must be replaced or paid for. Books not at the time needed in Urbana, or not subject to special restrictions, may be loaned for a limited period to other libraries in the State, for the use of students.

*Hours of Opening.* The General Library is open week days during the general sessions of the University, from 7:45 a. m. to 10 p. m., and on Sundays from 2 p. m. to 6 p. m. During the Summer Session, the Library is open from 7:45 a. m. to 10 p. m. on week days, but is not open on Sundays. During the summer vacation the Library is open from 9 a. m. to 12 m. Permits may be given for use at other hours. The Library is regularly closed on New Years', Independence, Labor, Thanksgiving, and Christmas days. The hours of opening of the departmental libraries differ somewhat from those given above.

### MUSEUMS AND COLLECTIONS

#### College of Liberal Arts and Sciences

##### *Liberal Arts Group*

*Art.*—A collection of casts, photographs, and engravings presented to the University in 1876 by citizens of the community has, for want of a suitable gallery, been placed in different buildings on the campus. Eight large statues are in the Auditorium foyer. Numerous pieces of this collection are now in the studios of the department of art and design in University Hall, and others are used to decorate the corridors and class rooms of University Hall, Lincoln Hall, Natural History Hall, and the Library. A collection of eighty-one German and Japanese prints purchased by the department of art and design from the St. Louis Exposition in 1905 is displayed in the rooms of the department of art and design.

Other collections of value to art students, consisting of a number of casts of Moorish, Spanish, and German ornament and miscellaneous casts, models, prints, and drawings, are placed in the studios and corridors of the department of art and design.

*Classical Archeology and Art.*—This museum is located in Rooms 402, 404, and 406 Lincoln Hall, and contains casts and photographs of works of Greek and Roman sculpture; miscellaneous originals and models of Babylonian, Greek, and Roman antiquities; and many objects from the finds of the Egypt Exploration Fund, received through the generosity of Mr. W. G. Hibbard, Jr., of Chicago; museum coins; about 30 Greek papyri; Babylonian tablets; and 1020 mounted photographs of historic sites and archeological remains in Greece, Italy, and other parts of the ancient world. Over 1,600 slides belonging to the

department of the classics are also available for illustrative purposes. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons.

*Education.*—In Room 417 University Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a collection of apparatus for the school laboratory. It is planned to gather here particularly materials that are illustrative of the development of public schools in Illinois.

*European Culture.*—The Museum of European Culture is in the north wing of Lincoln Hall. The collection consists of casts of Romanesque, Gothic, and Renaissance sculpture; color reproductions of masterpieces of painting; originals and facsimiles of medieval manuscripts, and early printed books; early maps of the world; peasant costumes shown in full size and in small costume manikins; models of ships; theater models and prints of theaters and actors; replicas of seals; reproductions of prehistoric antiquities, of early ivory carving, of runic inscriptions, of early musical instruments, and of arms and armor. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons.

#### *Science Group*

*Botany.*—The herbarium contains about 85,000 sheets of mounted specimens. It is fairly representative of the higher plants and fungi of Champaign County and of the State, and forms a useful collection for the general flora of the United States. Through acquisition of the herbaria of the late Dr. Frederick Brendel of Peoria, the late Dr. W. Welsch of Mascoutah, and the late Dr. Jacob Schneck of Mount Carmel, incorporated during the past year, and the earlier gift of the large personal herbarium of Mrs. Agnes Chase, its value for students of Illinois flora has been largely increased. Because of the interest of Professor Burrill and his special students, Clinton, Earle, Seymour, and others, in the study of parasitic fungi, the part of the herbarium devoted to the representation of plants of this group is rich in material records of investigation, and the published "exsiccatae" in this group are well represented. The recent gift of her personal set of the *Phycotheca Boreali-Americana* by Mrs. Mary S. Snyder has increased the reference value of the herbarium for students of algae, of which it represents over 2,000 named species.

*Entomology.*—The entomology collections of the University include a reference series of 6,400 specimens, representing 1,600 common species; and the Bolter collection, donated to the University by the executors of the estate of the late Andreas Bolter of Chicago, which now contains about 120,000 specimens representing over 16,000 species. The department has access, also, to the insect collections of the State Laboratory of Natural History, which contains 315,000 pinned insects and 23,000 vials and bottles of specimens in alcohol, mainly from Illinois.

*Geology.*—The geology collections are to be found in the Natural History Building. *Lithology* is represented by type collections of rocks aggregating 9,000 specimens; 2,000 thin sections of rocks and minerals; ornamental building stones; a collection of rock samples to illustrate Illinois geology; a collection of Illinois soils (104), a collection of gems and precious stones, a collection of meteorites, and one of polished marbles, granites, and other ornamental stones. The *mineralogy collection* contains over 12,000 specimens; 670 crystal models; and a collection of gems and precious stones. The *paleontology collection*

(60,000 specimens) contains representative fossils from the entire geologic series, but is especially rich in paleozoic forms. It embraces the private collections of A. H. Worthen (including 742 type specimens); Tyler McWhorter; Hertzler; the greater part of the collections made by the Geological Survey of the state under Worthen; detailed stratigraphic collections from various geological formations in the Mississippi valley; 200 thin sections of corals and bryozoa; the Ward collection of casts. In September, 1913, a collection of marine and fresh water shells that had belonged to the late A. H. Worthen was presented to the Museum by Mrs. Thomas A. Worthen. This collection includes about 3,000 specimens.

*Geography.*—The geography collection consists of a complete file of the United States topographic maps; a collection of U. S. Geological Survey folios; combined contour maps representing the physiographic provinces of the United States; a collection of foreign topographic maps; rainfall and vegetation maps; relief models of all the continents and of smaller areas; and several thousand lantern slides.

The Museum of Natural History includes the zoology collections which have been specially selected and prepared to illustrate the courses of study in zoology and to present a synoptical view of the zoology of the State. Most of them are placed in the museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of the United States and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons.

The collection of mounted birds includes representatives of all the orders and families of North America, together with a number of characteristic tropical, Bornean, and New Zealand forms. The collection is practically complete for Illinois species.

The Barnum collection of birds' eggs represents about 300 species and there is a collection of nests and eggs of Illinois birds.

The cold-blooded vertebrates are represented by a series of mounted skins of larger species, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups; alcoholic specimens; and casts. The alcoholics include series of the reptiles, amphibians, and fishes, the latter comprising about 300 species. The casts represent about seventy-five species, nearly all fishes.

The Mollusca are illustrated by alcoholic specimens of all classes and orders, and dissections showing the internal anatomy of typical forms. There are several thousand shells, belonging to more than 2,000 species. The collection of the Illinois aquatic species is nearly complete.

The lower invertebrates are represented by several hundred dried specimens and alcoholics, and by a series of Blaschka glass models.

The embryology of vertebrates and invertebrates is illustrated by several sets of Ziegler wax models and series of sections and other preparations.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

**College of Commerce and Business Administration**

*Commerce.*—For its courses in industrial economics and commerce the University has a collection of the materials of commerce; lanterns and several hundred slides; political and industrial maps; and diagrams and stereoscopic views illustrating phases of commerce and industry. Most of the articles constituting the commercial museum are the gifts of the Philadelphia Commercial Museum and of private manufacturing and mercantile establishments.

**College of Engineering**

*Architecture.*—The collections of the department of architecture include plaster casts of architectural detail and ornament; 9,400 lantern slides of architectural subjects and 900 slides of painting and sculpture; 20,000 classified plates, photographs, and 2,400 stereoscopic views; a working library of about 4,000 volumes on architecture and the allied arts; a collection of 300 examples of American woods, shown in three sections each; and collections of architectural drawings and of specimens of building materials, fittings, and appliances.

*Civil Engineering.*—The department of civil engineering has samples of iron, steel, wood, brick, and stone; materials for roads and pavements; models of arches and trusses. The department also possesses a collection of photographs and blue-print working drawings of bridges, metal skeleton buildings, masonry structures, and standard railroad construction.

*Electrical Engineering.*—This department has a collection of samples illustrating standard practise in the industrial applications of electricity. There is also a collection of lantern slides, photographs, blue-prints, drawings, pamphlets, and other engineering data.

*Mechanical Engineering.*—This department includes in its equipment part of a set of Reuleaux models; models of valve gears; sections of steam pumps; injectors; valves, skeleton steam and water gauges; standard packings; steam-pipe coverings; and drop forgings. There are also examples of castings; perforated metal, defective boiler plates, and set of drills, with samples of oil, iron, and steel. A number of working drawings from leading firms form a valuable addition to these collections.

*Mining Engineering.*—This department has an exhibit of sized coal as prepared by typical Illinois washeries, the raw materials and the finished products illustrating the briquetting of coal, models of a metalliferous mine and of timber and steel mine supports, an exhibit of explosive and blasting materials and appliances, breathing apparatus, and appliances necessary for mine rescue and first aid demonstration, a collection of safety-lamps and other mine-lighting and signaling devices, and working drawings and photographs of mine machinery.

*Municipal and Sanitary Engineering.*—The collection of the department of municipal and sanitary engineering includes maps of cities and towns, working plans of waterworks, sewerage systems, water purification and sewage disposal plans, photographs of a variety of municipal engineering works, and models of filters, flushing devices, valves, pipe, tile, and well strainers.

*Railway Engineering.*—The department of railway engineering has an exhibit of photographs illustrating the development in transportation; an exhibit showing the progress in the design and manufacture of rails; models of locomotive valve gears; a full-sized model of the front end of a Richmond compound locomotive; sectioned models of safety valves; brake beams; electric car controller; rail bonds; and sets of working drawings of locomotives and cars.

*Theoretical and Applied Mechanics.*—The department of theoretical and applied mechanics has a collection of materials of construction showing failures by tension, compression, twisting, shearing, and bending, and of lantern slides showing the manufacture, treatment, and tests of engineering materials. There are also models showing sections of water meter, gate valve, pressure reducing valve, and turbine.

#### **College of Agriculture**

The agricultural departments maintain collections illustrative of their work; among which are specimens of standard varieties of corn; wax models of fruit and vegetables; a horticulture herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of investigations with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, under the College of Agriculture, in Part II.

#### **Library School**

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in all departments; of labor-saving devices and fittings; and of photographs and lantern slides illustrating the history of books and libraries.

# ADMINISTRATION

## GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of twelve members. The Governor of the State, the Superintendent of Public Instruction, and the President of the State Board of Agriculture are members *ex officio*. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Senate, the Council of Administration, the Faculties of the several colleges, and the Deans of the colleges and Directors of the schools.

The President is the administrative head of the University.

The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Dean of the Graduate School, the Deans of Men and Women, and the Deans of the several colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common usage or by rule of the Senate and cannot be conveniently laid over until the next meeting of the Senate, the Council may act upon the same according to its discretion.

The Faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.

## DEPARTMENTS AND COURSES

For the purpose of administration the University is divided into several colleges and schools. These are not educationally separate, but are interdependent and form a single unit.

The colleges and schools are as follows:

- I. The College of Liberal Arts and Sciences
- II. The College of Commerce and Business Administration
- III. The College of Engineering
- IV. The College of Agriculture
- V. The Graduate School
- VI. The Library School
- VII. The School of Music

- VIII. The School of Education
- IX. The School of Railway Engineering and Administration
- X. The College of Law
- XI. The College of Medicine
- XII. The College of Dentistry
- XIII. The School of Pharmacy

*The College of Liberal Arts and Sciences* offers courses in—

- 1. Philosophy and arts, including—
  - (a) The ancient classical languages
  - (b) The Romance languages
  - (c) The Germanic languages
  - (d) The English language and literature, including rhetoric
  - (e) Mathematics
  - (f) The political and social sciences—
    - History
    - Economics
    - Political science
    - Sociology
  - (g) Philosophical subjects—
    - Philosophy
    - Psychology
    - Education
  - (h) Art and design
- 2. General Science, affording opportunity to specialize in—
  - (a) Astronomy
  - (b) Geology, including mineralogy and geography
  - (c) Physics
  - (d) Chemistry
  - (e) Botany, including bacteriology
  - (f) Zoology
  - (g) Entomology
  - (h) Physiology

By the grouping of certain subjects students in this College are also offered opportunities for specific vocational and professional training as follows:

1. Teaching and school administration
2. Journalism
3. Chemistry
4. Chemical engineering
5. Household science and household administration
6. Library administration
7. Law (combined course)
8. Medicine (combined course)
9. Engineering (combined course)

*The College of Commerce and Business Administration* offers curriculums in—

1. General business
2. Commercial and civic secretarial service
3. Banking
4. Insurance
5. Accountancy

6. General railway administration
7. Railway transportation
8. Commercial teaching
9. Foreign commerce

*The College of Engineering* offers curriculums in—

1. Architecture
2. Architectural engineering
3. Ceramic engineering
4. Civil engineering
5. Electrical engineering
6. Mechanical engineering
7. Mining engineering
8. Municipal and sanitary engineering
9. Railway civil engineering
10. Railway electrical engineering
11. Railway mechanical engineering

*The College of Agriculture* offers curriculums in—

1. Agronomy
2. Horticulture, floriculture, and landscape gardening
3. Animal husbandry
4. Dairy husbandry
5. Household science
6. Agricultural extension
7. The teaching of agriculture

*Military science* and *physical training* are provided in all the undergraduate colleges in Urbana.

*The Graduate School* offers courses in—

Philology, including the classical languages, Romance languages, Germanic languages, and English

Mathematics

Political and social sciences, including history, economics, sociology, and political science

Philosophy, including psychology and education

Physical sciences, including physics, chemistry, astronomy, and geology

Biology, including botany, zoology, entomology, and physiology

Engineering, including architecture, architectural engineering, ceramic engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering

Agriculture, including agronomy, animal husbandry, dairy husbandry, floriculture, horticulture, and thremmatology

Household science

*The Library School* offers a professional curriculum of two years in preparation for the librarianship, leading to the degree of Bachelor of Library Science.

*The School of Music* offers curriculums in vocal and instrumental music, leading to the degree of Bachelor of Music, and provides training in public school methods in music.

*The School of Education* enrolls, at the beginning of the junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

*The School of Railway Engineering and Administration* offers curriculums leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also curriculums in railway transportation and in railway administration, leading to the degree of Bachelor of Arts.

*The College of Law* offers a curriculum of three years leading to the degree of Bachelor of Laws.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law (J.D.)

*The College of Medicine* offers a curriculum of four years leading to the degree of Doctor of Medicine; and, in conjunction with the College of Liberal Arts and Sciences, a curriculum of six years, leading at the end of four years to the degree of Bachelor of Arts or Bachelor of Science, and at the end of two additional years in the senior college of the College of Medicine, to the degree of Doctor of Medicine.

*The College of Dentistry* offers a three-year curriculum leading to the degree of Doctor of Dental Surgery.

*The School of Pharmacy* offers curriculums leading to the degrees of Graduate in Pharmacy and Pharmaceutical Chemist.

*The Summer Session*, of eight weeks, offered in 1915 courses in accountancy, agriculture, art and design, botany, chemistry, drawing (general engineering), economics, education, English, entomology, French, German, history, household science, Latin, library science, manual training, mathematics, mechanical engineering, mechanics (theoretical and applied), microscopical technics, music, physical training for men and for women, physics, political science, psychology, rhetoric, sociology, and zoology.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.

# ADMISSION

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## GENERAL STATEMENT

An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age. Candidates for admission to the College of Dentistry (Chicago) must be eighteen, and candidates for admission to the School of Pharmacy (Chicago) must be seventeen years of age.

Women are admitted to all departments under the same conditions and on the same terms as men.

Students may be admitted at any time, but should enter if possible at the beginning of the fall semester (in 1916, September 19), or at the beginning of the spring semester (in 1917, February 5). Students can seldom enter the College of Engineering to advantage except at the opening of the school year in September.

The entrance requirements for the undergraduate departments, including the colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, and Agriculture, and the School of Music, amounting in each case to 15 units of high-school work, are stated in detail immediately below (page 72).

*The College of Law* requires, in addition to 15 units of high-school credit, two years (60 semester hours) of college work in arts, letters, and science in an institution having standards equal to those of the University of Illinois. (See page 214.)

*The Library School* requires a bachelor's degree in arts, letters, and science from an institution having standards equal to those of the University of Illinois. (See page 196.)

*The College of Medicine (Chicago)* requires, in addition to 15 units of high-school credit, two years (60 semester hours) of college work in an institution having standards equal to those of the University of Illinois. (See page 219.)

*The College of Dentistry (Chicago)* requires an applicant for admission to present a certificate of graduation from an accredited high school or the equivalent; which equivalent is interpreted to mean 15 units of preparatory work in an accredited high school or academy or a state normal school. (See page 244.)

*The School of Pharmacy (Chicago)*, for the year 1915-16, required for admission to its shorter curriculum, leading to the degree of Graduate in Pharmacy, two years of high-school work or the full educational equivalent; and for admission to its longer curriculum, leading to the degree of Pharmaceutical Chemist, graduation from an accredited high school or the equivalent. For the year 1916-17 and thereafter, graduation from an accredited high school with 15 acceptable units will be required for admission to both curriculums in this School. (See page 254.)

## ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES

Under an action taken by the Board of Trustees of the University of Illinois on June 9, 1914, the following new entrance requirements for the curriculums leading to the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Music—or, in other words, for the undergraduate departments at Urbana, including the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, the College of Engineering, the College of Agriculture, and the School of Music—went into effect September 1, 1915:

### **High School Graduation**

A candidate for admission *by certificate* must be a *graduate* of an accredited high school or other accredited school.

An applicant who has not been graduated from an accredited school must pass entrance examinations in the following subjects, amounting to 5 units\*:

English composition .....	1 unit
Algebra .....	1 unit
Additional subjects to be designated by the University authorities.....	3 units
Total .....	5 units

The remaining 10 units necessary to make up the 15 units required for admission may also be made in entrance examinations or may be offered by certificate from any accredited school.

### **Number of Units Required**

Fifteen units of high-school or other secondary-school work, in acceptable subjects (see Lists A, B, and C below), must be offered by every candidate.

In 1915-16 students were admitted with conditions of not more than *one unit*; that is, with a minimum of 14 units. All such conditions must be made up before the student can be permitted to register for his second year in the University.

*After September 1, 1916, no conditions will be permitted.* In other words, every student must offer at the time of admission 15 units in acceptable subjects, including the 6 units specifically prescribed for the undergraduate colleges (see List A below). It is provided, however, that a student who offers 15 acceptable units including the 6 units of List A, but is deficient not to exceed 2 units in subjects prescribed only for the college or curriculum which he wishes to enter, may be admitted in that college or curriculum to courses for which he is fully prepared, subject to the requirement that the deficiencies in question shall be removed before he may register for a second year's work.

A student with deficiencies is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

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\*A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise.

### Prescribed Subjects

#### Summary

The 15 units offered for admission must include:

I. Certain subjects <i>prescribed alike for all curriculums</i> (see List A below) .....	6 units
II. Certain subjects <i>prescribed in addition for the individual curriculum</i> which the student wishes to enter.....	1 to 4 units
III. Enough <i>electives in academic subjects</i> (see List B below) to make, with the subjects prescribed for all curriculums (List A) and those prescribed for the individual curriculum of the student's choice, 12 units in academic subjects.....	5 to 2 units
IV. <i>Three additional units</i> , which may be chosen either from the list of academic electives (List B) or from the list of additional electives (List C) .....	3 units
Total .....	15 units

#### Detailed Statement

##### *I. Units Prescribed for All Curriculums*

Of the 15 units required, the following 6 units, constituting List A, are *prescribed* for admission to the freshman class in *all* the undergraduate curriculums of the University, and no substitutes are accepted:

##### *LIST A*

English (composition and literature).....	3 units
Algebra <sup>1</sup> .....	1 unit
Plane geometry .....	1 unit
Physics, or chemistry, or botany, or zoology, or physiology, with laboratory work .....	1 unit
Total .....	6 units

##### *II. Additional Prescriptions for Individual Curriculums*

Of the 9 units that remain, certain others are *prescribed* for admission to *individual curriculums*, and in each case no substitutes are accepted for the curriculum in question. These additional prescriptions are as follows:

For the <i>College of Liberal Arts and Sciences</i> for the curriculums leading to the Degree of Bachelor of Arts (including the <i>General Curriculum in Liberal Arts and Sciences</i> , the curriculums in <i>Journalism, Household Science, and Medicine</i> , and the <i>Curriculum preliminary to Law</i> —Latin, Greek, French, German, or Spanish (both units in the same language) .....	2 units
For the <i>College of Liberal Arts and Sciences</i> for the curriculum in <i>General Science</i> —Science .....	1 unit
For the <i>College of Liberal Arts and Sciences</i> for the curriculum in <i>Chemistry</i> —Science .....	1 unit
German or French .....	2 units

<sup>1</sup>One and one-half units of high-school algebra are prerequisite for registration in all university courses in mathematics, and college mathematics is prerequisite for courses in physics and advanced chemistry. It is necessary, therefore, for students who intend to pursue curriculums involving college mathematics, physics, or advanced chemistry, including the curriculums in household science, medicine, chemistry, and chemical engineering, or curriculums in commerce and business administration in which university courses in mathematics are prescribed, to present for admission to the University, or make up after entrance, one-half unit of advanced algebra in addition to the required unit of List A.

For College of Liberal Arts and Sciences for the curriculum in *Chemical Engineering*—

Science .....	1 unit
German .....	2 units

For the College of Commerce and Business Administration—

ONE OF THE FOLLOWING OPTIONS

(a) Latin, Greek, French, German, or Spanish (both units in the same language) .....	2 units
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(b) { Advanced algebra .....	OR and Solid and spherical geometry.....	½ unit
	OR	½ unit

(c) Science .....	1 unit
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For the College of Engineering—

Advanced algebra .....	½ unit
Solid and spherical geometry .....	½ unit

For the College of Agriculture—

Science .....	1 unit
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For the School of Music—

Latin, Greek, French, German, or Spanish (both units in the same language) .....	2 units
Music .....	2 units

### III. Academic Electives

Enough electives must be chosen from List B below to make, with the subjects prescribed for all curriculums (List A) and those prescribed for the individual curriculum of the student's choice, 12 units in academic subjects.

It will be seen that the number of such electives from List B required for the several curriculums is as follows:

For the College of Liberal Arts and Sciences for the curriculums leading to the degree of Bachelor of Arts (including the General Curriculum in Liberal Arts and Sciences, the curriculums in Journalism, Household Science <sup>1</sup> , and Medicine <sup>1</sup> , and the Curriculum preliminary to Law)....	4 units
For the College of Liberal Arts and Sciences for the curriculum in General Science <sup>1</sup> .....	5 units
For the College of Liberal Arts and Sciences for the curriculums in Chemistry <sup>4</sup> and Chemical Engineering <sup>4</sup> .....	3 units
For the College of Commerce and Business Administration <sup>1</sup> —	
Under option (a).....	4 units
Under option (b).....	5 units
Under option (c).....	5 units
For the College of Engineering.....	5 units
For the College of Agriculture.....	5 units
For the School of Music.....	2 units

#### LIST B

	Units
Latin .....	36 to 144 weeks      1-4
Greek .....	36 to 108 weeks      1-3
French .....	36 to 144 weeks      1-4
German .....	36 to 144 weeks      1-4
Spanish .....	36 to 144 weeks      1-4
Italian .....	36 to 72 weeks      1-2
Norwegian .....	36 to 72 weeks      1-2
Swedish .....	36 to 72 weeks      1-2
Polish .....	36 to 72 weeks      1-2
English (4th unit).....	36 weeks      1
<sup>1</sup> Advanced algebra .....	18 weeks      ½
Solid geometry .....	18 weeks      ½
Trigonometry .....	18 weeks      ½
History .....	36 to 108 weeks      1-3
Civics .....	18 or 36 weeks      ½-1
Economics and economic history.....	18 or 36 weeks      ½-1

<sup>1</sup>See footnote, page 73.

Commercial geography .....	18 or	36 weeks	$\frac{1}{2}$ -1
Astronomy .....		18 weeks	$\frac{1}{2}$
Geology .....	18 or	36 weeks	$\frac{1}{2}$ -1
Physiography .....	18 or	36 weeks	$\frac{1}{2}$ -1
Physiology .....	18 or	36 weeks	$\frac{1}{2}$ -1
Zoology .....	18 or	36 weeks	$\frac{1}{2}$ -1
Botany .....	18 or	36 weeks	$\frac{1}{2}$ -1
Physics .....	36 to	72 weeks	1-2
Chemistry .....	36 to	72 weeks	1-2

*IV. Additional Electives*

The remaining 3 units may be chosen either from List B above or from

## List C:

LIST C<sup>1</sup>

## Units

Agriculture .....	36 to	72 weeks	1-2
Bookkeeping .....		36 weeks	1
Business law .....		18 weeks	$\frac{1}{2}$
Domestic science .....	36 to	72 weeks	1-2
Drawing, art and design .....	18 or	36 weeks	$\frac{1}{2}$ -1
Drawing, mechanical .....	18 or	36 weeks	$\frac{1}{2}$ -1
Manual training <sup>2</sup> .....	36 to	72 weeks	1-2
Music .....	36 to	72 weeks	1-2

## Summary by Courses

The requirements stated above may be summarized by colleges and curriculums as follows:

For the *College of Liberal Arts and Sciences* for the curriculums leading to the degree of Bachelor of Arts (including the *General Curriculum in Liberal Arts and Sciences*, the curriculums in *Journalism*, *Household Science*<sup>3</sup>, and *Medicine*<sup>3</sup>, and the *Curriculum preliminary to Law*):

I. List A (prescribed for all curriculums).....	6 units
II. Special prescription for these curriculums—	
Latin, Greek, French, German, or Spanish (both units in the same language) .....	2 units
III. Electives from List B.....	4 units
IV. Electives from either List B or List C.....	3 units

Total ..... 15 units

For the *College of Liberal Arts and Sciences* for the curriculum in *General Science*<sup>3</sup>:

I. List A (prescribed for all curriculums).....	6 units
II. Special prescription for this curriculum—	
Science .....	1 unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units

Total ..... 15 units

For the *College of Liberal Arts and Sciences* for the curriculum in *Chemistry*<sup>3</sup>:

I. List A (prescribed for all curriculums).....	6 units
II. Special prescriptions for this curriculum—	
Science .....	1 unit
German or French.....	2 units
III. Electives from List B.....	3 units
IV. Electives from either List B or List C.....	3 units

Total ..... 15 units

<sup>1</sup>The subjects named in List C must be taught in accordance with specifications which are set forth in the High School Manual. Further information may be had on application to the High School Visitor.

<sup>2</sup>In giving credits for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the necessary drawing and shop work.

<sup>3</sup>See footnote, page 73.

For the *College of Liberal Arts and Sciences* for the curriculum in *Chemical Engineering*<sup>1</sup>:

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescriptions for this curriculum—	
	Science .....	1 unit
	German .....	2 units
III.	Electives from List B.....	3 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

For the *College of Commerce and Business Administration*<sup>1</sup>:

**OPTION (A)**

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescription for this College under this option—	
	Latin, Greek, French, German, or Spanish (both units in the same language) .....	2 units
III.	Electives from List B.....	4 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

**OPTION (B)**

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescriptions for this College under this option—	
	Advanced algebra .....	½ unit
	Solid and spherical geometry.....	½ unit
III.	Electives from List B.....	5 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

**OPTION (C)**

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescriptions for this College under this option—	
	Science .....	1 unit
III.	Electives from List B.....	5 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

For the *College of Engineering*:

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescriptions for this College—	
	Advanced algebra .....	½ unit
	Solid and spherical geometry.....	½ unit
III.	Electives from List B.....	5 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

For the *College of Agriculture*:

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescription for this College—	
	Science .....	1 unit
III.	Electives from List B.....	5 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

<sup>1</sup>See footnote, page 73.

For the *School of Music*:

I.	List A (prescribed for all curriculums).....	6 units
II.	Special prescriptions for this School— Latin, Greek, French, German, or Spanish (both units in the same language) .....	2 units
	Music .....	2 units
III.	Electives from List B.....	2 units
IV.	Electives from either List B or List C.....	3 units
	Total .....	15 units

**METHODS OF ADMISSION**

The credits required for admission to the undergraduate departments, as detailed above, may be secured:

- (a) By examination.
- (b) By certificate from an accredited high school or other secondary school.
- (c) By transfer from another university or college of recognized standing.

**(A) ADMISSION BY EXAMINATION****I. The University Entrance Examinations**

The University entrance examinations are given at the University in Urbana (in Room 100 Commerce Building) three times in each year: in September, immediately before the opening of the fall semester; in February, shortly before the opening of the spring semester; and in July, during the Summer Session.

These examinations cover all the subjects required or accepted for admission, as outlined in the "Description of Subjects Accepted for Admission" on page 89.

For programs of these three sets of examinations for 1916-17, see pages 81-82.

**II. The Examinations of the College Entrance Examination Board**

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher, will be accepted for admission in any subject in the lists on pages 74 and 75 in the amounts there specified as being acceptable. These examinations will be held during the week of June 19-24, 1916.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application.

Applications for examination at points in the United States east of the Mississippi River, and also at Minneapolis, St. Louis, and other points on the Mississippi River, must be received by the Secretary of the Board at least two weeks in advance of the examinations; that is, on or before Monday, June 5, 1916; applications for examination elsewhere in the United States or in Canada must be received at least three weeks in advance of the examinations; that is, on or before Monday, May 29, 1916, and applications for examination outside of the United States and Canada must be received at least five weeks in advance of the examinations; that is, on or before Monday, May 15, 1916.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidate concerned, but only upon the payment of \$5.00 in addition to the usual fee.

The examination fee is \$5.00 for all candidates examined at points in the United States and Canada, and \$15.00 for all candidates examined outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1916, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

### III. The New York Regents' Examinations

Credits will be accepted, also, from the examinations conducted by the Regents of the University of the State of New York.

#### (B) ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY SCHOOL

Blank certificates for students wishing to enter the University by *certificate* from an accredited high school or academy may be had of the Registrar. They should be obtained early and should be filled out and sent to the Registrar for approval as soon as possible after the close of the high-school year in June. Certificates received at the University after September 14 (in 1916) will be held until the arrival of the student unless such certificates are accompanied by an addressed envelope with a special delivery stamp.

#### Accredited Schools

The High-School Visitor of the University visits and inspects, on request, high schools and other preparatory schools throughout the State. On the basis of his reports, approved by the Committee on Accredited Schools and by the Council of Administration, the University accredits all work which is found to be sufficiently well done. For a list of Accredited Schools, correct to January 1, 1916, see page 83. Not all the schools named in this list, however, are accredited for the same amount of work nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein *for which the school is specifically accredited as shown in the certificate of its accredited relation issued to the school by the University*.

Entrance credits will also be accepted on certificate from the following sources:

1. From schools accredited by the North Central Association of Colleges and Secondary Schools.
2. From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
3. From schools approved by the New England College Entrance Certificate Board.
4. From high schools and academies registered by the Regents of the University of the State of New York.
5. From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.

**Foreign Students**

Candidates for admission who come from foreign countries should bring complete official credentials. Certificates from oriental countries should be accompanied by certified translations. Upon arriving at the University foreign students should consult with the Adviser to Foreign Students, Room 153, Administration Building.

**Examinations in Rhetoric I**

Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in rhetoric (Rhetoric 2) may be excused from the first semester's work (Rhetoric 1). An examination to test such proficiency will be given at 7:00 p. m., on the first day of registration (in 1916, September 18). The results of this examination will be announced the following morning. Students who try this examination should defer their registration until they learn whether or not they have passed in the examination.

**(C) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES**

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination or real equivalents. No substitutes will be accepted for the subjects *prescribed* for all colleges or by individual colleges as indicated above (pages 73 to 77).

For admission to advanced standing by transfer of college credits see page 80 below.

Students intending to transfer to the University of Illinois should send an official statement of their college credits, accompanied by a summary of their preparatory work and by a letter of honorable dismissal, to the Registrar as early in the summer as possible.

**ADMISSION AS SPECIAL STUDENTS**

Persons over twenty-one years of age may be admitted as special students, provided they secure (1) the recommendation of the professor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and ability to pursue profitably, as special students, their chosen subjects, and must meet the special requirements of the particular college in which they wish to enroll, as stated below.

A special student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No one may enroll as a special student in any school or college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

**Special Requirements of the Colleges and Schools**

*The College of Liberal Arts and Sciences* requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

*The College of Engineering* requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

*The College of Agriculture* will receive non-matriculants twenty-one years old or over, provided that if deficient in English as measured by the requirements for matriculation they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture.

*The Library School* requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory and college work and showing honorable dismissal from the institution last attended. In order that action may be taken on such applications before registration day, they should be presented not later September 1.

It is the practise of this School to admit as special students only those persons who, tho' unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue the chosen subjects profitably, and some substitute for the regular requirements for entrance, such as the completion of part of a college curriculum, approved library or teaching experience, or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois libraries. Students thus admitted are expected to take all of the course prescribed for those who are candidates for the degree of Bachelor of Library Science, or failing that, as much of the prescribed work as they are prepared for.

**ADMISSION TO ADVANCED STANDING**

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits.

1. *By examination*—Advanced standing is granted only by examination unless the applicant is from an approved school.

2. *By transfer of credits*—Credits may be accepted for advanced standing from another university or college of recognized standing or from a state normal school. An applicant for advanced standing by transfer must present a certified record of work done in the institution from which he comes, accompanied by a letter of honorable dismissal. Students intending to transfer to the University of Illinois should send their credentials to the Registrar as early in the summer as possible.

## PROGRAMS OF UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 100, Commerce Building) three times in each year: in September, immediately before the opening of the fall semester; in February, shortly before the opening of the spring semester; and in July and August, during the Summer Session.

The scope of these examinations is indicated in the "Description of Subjects Accepted for Admission," pages 89 to 96.

Admission to the examinations is by permit. Permits may be obtained of the Registrar, 156 Administration Building.

### Entrance Examinations, July, 1916

*History, 1, 2, or 3 units.....	Sat., July 8, 8:00 a.m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 8, 10:00 a.m.
†Physiology, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 15, 8:00 a.m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 15, 8:00 a.m.
†Physical geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 15, 10:00 a.m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Sat., July 22, 8:00 a.m.
Plane geometry, 1 unit.....	Sat., July 22, 8:00 a.m.
Solid and spherical geometry, $\frac{1}{2}$ unit.....	Sat., July 22, 10:00 a.m.
English literature, 2 units.....	Sat., July 29, 8:00 a.m.
English composition, 1 unit.....	Sat., July 29, 10:00 a.m.
Latin, 1, 2, 3, or 4 units.....	Sat., July 29, 8:00 a.m.
German, 1, 2, 3, or 4 units.....	Sat., July 29, 8:00 a.m.

The time for examinations in agriculture, astronomy, bookkeeping, botany†, business law, chemistry‡, domestic science, drawing (freehand or mechanical), economics and economic history, the fourth unit in English, French, geology, Greek, music, physics‡, Spanish, trigonometry, and zoology‡, will be arranged with candidates.

### Fall Examinations, September, 1916

†Chemistry, 1 unit or 2 units.....	Mon., Sept. 11, 1:00 p.m.
Geology, $\frac{1}{2}$ unit or 1 unit.....	Mon., Sept. 11, 1:00 p.m.
Astronomy, $\frac{1}{2}$ unit.....	Mon., Sept. 11, 3:30 p.m.
Trigonometry, $\frac{1}{2}$ unit.....	Mon., Sept. 11, 3:30 p.m.
*History, 1, 2, or 3 units.....	Tues., Sept. 12, 8:00 a.m.
English literature, 2 units.....	Tues., Sept. 12, 1:00 p.m.
English composition, 1 unit.....	Tues., Sept. 12, 3:30 p.m.
Latin, 1st unit, or 2nd unit, or both.....	Wed., Sept. 13, 8:00 a.m.
†Physics, 1 unit .....	Wed., Sept. 13, 8:00 a.m.
†Physical geography, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 13, 10:30 a.m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Wed., Sept. 13, 1:00 p.m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 13, 3:30 p.m.
Economics and economic history, $\frac{1}{2}$ unit or 1 unit....	Wed., Sept. 13, 3:30 p.m.
Geometry, plane, 1 unit.....	Thurs., Sept. 14, 8:00 a.m.
Geometry, solid and spherical, $\frac{1}{2}$ unit.....	Thurs., Sept. 14, 10:30 a.m.
†Physiology, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Sept. 14, 10:30 a.m.

\*Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history,  $\frac{1}{2}$  unit or 1 unit; American history,  $\frac{1}{2}$  unit or 1 unit.

†Notebook required for 1 unit; not required for  $\frac{1}{2}$  unit.

‡Notebook required.

German, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 14, 1:00 p.m.
German, 3rd unit, or 4th unit, or both.....	Thurs., Sept. 14, 3:30 p.m.
French, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 14, 1:00 p.m.
French, 3rd unit, or 4th unit, or both.....	Thurs., Sept. 14, 3:30 p.m.
Spanish, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 14, 1:00 p.m.
Business law, $\frac{1}{2}$ unit.....	Thurs., Sept. 14, 1:00 p.m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Sept. 14, 3:30 p.m.
Latin, 3rd unit, or 4th unit, or both.....	Fri., Sept. 15, 8:00 a.m.
Bookkeeping, 1 unit.....	Fri., Sept. 15, 8:00 a.m.
*Botany, $\frac{1}{2}$ unit or 1 unit.....	Fri., Sept. 15, 8:00 a.m.
*Zoology, $\frac{1}{2}$ unit or 1 unit.....	Fri., Sept. 15, 10:30 a.m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, music, Greek, and the fourth unit in English, will be arranged with applicants.

#### Mid-Year Examinations, January, 1917

*Chemistry, 1 unit or 2 units.....	Wed., Jan. 24, 8:00 a.m.
Geology, $\frac{1}{2}$ unit or 1 unit.....	Wed., Jan. 24, 8:00 a.m.
Astronomy, $\frac{1}{2}$ unit.....	Wed., Jan. 24, 10:30 a.m.
Trigonometry, $\frac{1}{2}$ unit.....	Wed., Jan. 24, 10:30 a.m.
†History, 1, 2, or 3 units.....	Wed., Jan. 24, 1:00 p.m.
English literature, 2 units.....	Thurs., Jan. 25, 8:00 a.m.
English composition, 1 unit.....	Thurs., Jan. 25, 10:30 a.m.
Latin, 1st unit, or 2nd unit, or both.....	Thurs., Jan. 25, 1:00 p.m.
*Physics, 1 unit.....	Thurs., Jan. 25, 1:00 p.m.
‡Physical geography, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Jan. 25, 3:30 p.m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Fri., Jan. 26, 8:00 a.m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Fri., Jan. 26, 10:30 a.m.
Economics and economic history, $\frac{1}{2}$ unit or 1 unit.....	Fri., Jan. 26, 10:30 a.m.
Geometry, plane, 1 unit.....	Fri., Jan. 26, 1:00 p.m.
Geometry, solid and spherical, $\frac{1}{2}$ unit.....	Fri., Jan. 26, 3:30 p.m.
‡Physiology, $\frac{1}{2}$ unit or 1 unit.....	Fri., Jan. 26, 3:30 p.m.
German, 1st unit, or 2nd unit, or both.....	Sat., Jan. 27, 8:00 a.m.
German, 3rd unit, or 4th unit, or both.....	Sat., Jan. 27, 10:30 a.m.
French, 1st unit, or 2nd unit, or both.....	Sat., Jan. 27, 8:00 a.m.
French, 3rd unit, or 4th unit, or both.....	Sat., Jan. 27, 10:30 a.m.
Spanish, 1st unit, or 2nd unit, or both.....	Sat., Jan. 27, 8:00 a.m.
Business law, $\frac{1}{2}$ unit.....	Sat., Jan. 27, 8:00 a.m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., Jan. 27, 10:30 a.m.
Latin, 3rd unit, or 4th unit, or both.....	Sat., Jan. 27, 1:00 p.m.
Bookkeeping, 1 unit.....	Sat., Jan. 27, 1:00 p.m.
*Botany, $\frac{1}{2}$ unit or 1 unit.....	Sat., Jan. 27, 1:00 p.m.
*Zoology, $\frac{1}{2}$ unit or 1 unit.....	Sat., Jan. 27, 3:30 p.m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, music, Greek, and the fourth unit in English, will be arranged with applicants.

\*Notebook required.

†Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history,  $\frac{1}{2}$  unit or 1 unit; American history,  $\frac{1}{2}$  unit or 1 unit.

‡Notbook required for 1 unit; not required for  $\frac{1}{2}$  unit.

## LIST OF ACCREDITED SCHOOLS

(Correct to January 1, 1916.)

The following high schools, having all the prescribed units, and enough others to make up the required total of 15 units, are in the list of fully accredited schools.

Not all of these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.

The High School Visitor of the University inspects high schools not previously accredited upon request, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address THE HIGH SCHOOL VISITOR, in care of the University of Illinois.

## FULLY ACCREDITED SCHOOLS

School	Superintendent	Principal
ABINGDON	A. C. BUTLER	IRA M. WRIGLEY
ALBION	LEE V. MATHENY	M. E. STEELE
HIGH SCHOOL SOUTHERN COLLEGiate INSTITUTE		
ALEDO	F. N. TAYLOR	O. A. HOSTETLER
HIGH SCHOOL DRURY ACADEMY	WILLIAM HARRIS	G. F. BAUMEISTER
ALTAMONT	R. A. HAIGHT	GLADYS EADE
ALTON	GEORGE N. BRADLEY	B. C. RICHARDSON
HIGH SCHOOL WESTERN MIL. ACAD.	CHARLES McGINNIS	GEORGE D. EATON
AMBOY	O. R. ZOLL	MYRTLE KENNEY
ANNA	G. E. CLENDENEN	C. A. HARPER
HIGH SCHOOL UNION ACADEMY	LEE M. BLAIR	W. O. SHEWMAKER
ARCOLA TP.	O. A. FACKLER	S. R. ALLEN
ARLINGTON HEIGHTS	II. L. WELKER	ADA R. KUGER
ARMINGTON (Hittle Tp.)	C. D. JACOBS	OLGA V. HOFACKER
ARTHUR	ARTHUR O. FRAZIER	ALBERT WALKER
ASHLAND	A. E. DECKER	HAZEL WATERHOUSE
ASHTON		L. D. WYATT
ASSUMPTION TP.		J. O. STANBERRY
ASTORIA		C. A. WHITESIDE
ATLANTA		GAYLE AU
ATWOOD		MARY E. ORR
AUGUSTA		MABEL GARWOOD
AUGUSTANA COLLEGE ACADEMY ( <i>Rock Island</i> )		J. MAURITZSON
AURORA	C. M. BARDWELL	K. D. WALDO
EAST HIGH SCHOOL	S. K. McDOWELL	K. C. MERRICK
WEST HIGH SCHOOL		BERTHA BARBER
JENNINGS SEMINARY	J. D. SHOOP	GEORGE H. ROCKWOOD
AUSTIN HIGH SCHOOL ( <i>Chicago</i> )	HARRY E. ILER	HAZEL BROAD
AVERVILLE HIGH SCHOOL ( <i>Peoria</i> )	A. E. HUBBARD	ALICE FELT
AVON	ERMAN S. SMITH	JESSIE SPRINGSTEAD
BARRINGTON	VAIL CORDELL	E. RUTH TIPPLE
BARRY	H. A. BONE	A. A. REA
BATAVIA	H. G. RUSSELL	MRS. H. G. RUSSELL
BEARDSTOWN	GEORGE H. BUSIEK	H. W. BRUA
BELLEVILLE		DEAN M. INMAN
BELLFLOWER TP.	Lewis A. Reisner	J. E. ALMON
BELVIDERE	OTTO WEEDMAN	LOTTIE B. COOK
BEMENT		C. W. HOUK
BENTON TP.	J. S. GRIFFIN	C. E. PLUMMER
BIGGSVILLE TP.	J. K. STABLETON	R. A. WILLIAMS
BISMARCK TP.		ELZA R. FARRIS
BLANDINSVILLE		
BLOOMINGTON	ALBERT A. HOLMES	WILLIAM WALLIS
HIGH SCHOOL		REV. M. WELDON
ST. MARY'S HIGH SCHOOL		E. L. BOYER
BLOOM TP. ( <i>Chicago Heights</i> )		J. E. LEMON
BLUE ISLAND TP.		L. G. McARTHUR
BOWEN		

School	Superintendent	Principal
BOWEN HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	CHARLES I. PARKER
BRADFORD	F. W. DUNLAP	MRS. LILLIAN DEMING
BRADLEY POLY. INST. ( <i>Peoria</i> )		T. C. BURGESS, <i>Dir.</i>
BRIDGEPORT T.P.		O. M. EASTMAN
BUDA	T. F. McLAMARAH	EDITH BALDWIN
BUSHNELL	T. W. EVERITT	BEULAH HARVEY
BYRON	H. V. LYNN	MARJORIE HULL
CAIRO		
HIGH SCHOOL	T. C. CLENDENEN	GEORGE A. PETERSON
SUMNER HIGH SCHOOL		J. C. LEWIS
CALUMET HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	GRANT BEEBE
CAMBRIDGE	H. M. HINKLE	A. F. KIRKLAND
CAMP POINT	J. D. KNIGHT	VERONA ROCKWELL
CANTON	G. W. GAYLER	V. G. HELLER
CARBONDALE		
SO. ILL. NOR. UNIV. H. S.	H. T. WHITE	F. G. WARREN
CABLINVILLE		MARGARET HUBBARD
CARL SCHURZ HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	WALTER F. SLOCUM
CARYLE	M. N. TODD	MIMA MAXEY
CARMI T.P.		JOSEPH GERSBACHER
CARROLLTON	E. A. DOOLITTLE	DAVID M. CRIST
CARTERVILLE	L. A. SHAFER	R. M. RUSSELL
CARTHAGE		
HIGH SCHOOL	D. H. WELLS	A. M. WILSON
CARTHAGE COLLEGE ACADEMY		H. D. HOOVER, <i>Pres.</i>
CASEY	W. G. THOMPSON	J. G. POLLARD
CENTRAL HIGH SCHOOL ( <i>Peoria</i> )	G. T. SMITH	A. W. BEASLEY
CENTRALIA T.P.		E. V. TUBBS
CHAMPAIGN	W. W. EARNEST	LOTTIE SWITZER
CHARLESTON	DEWITT ELWOOD	LESTER R. MCCARTY
CHATHAM	G. P. CHAPMAN	G. P. CHAPMAN
CHATSWORTH	L. C. SMITH	LYDDIA E. KLAMM
CHENOA	A. R. HIETT	MAUDE FAIRFIELD
CHESTER	S. E. REECHER	E. R. SAYRE
CHICAGO:	J. D. SHOOP	
AUSTIN		GEORGE H. ROCKWOOD
BOWEN		CHARLES I. PARKER
CALUMET		GRANT BEEBE
CARL SCHURZ		WALTER F. SLOCUM
CRANE, R. T. (TECH.)		W. J. BARTHOLF
ENGLEWOOD		J. E. ARMSTRONG
FENGEN		THOMAS G. HILL
HARRISON TECHNICAL		FRANK L. MORSE
HYDE PARK		HIRAM B. LOOMIS
LAKE		EDWARD F. STEARNS
LAKE VIEW		B. FRANK BROWN
LANE TECHNICAL		W. J. BOGAN
LUCY FLOWER TECH.		DORA WELLS
McKINLEY		GEORGE M. CLAYBERG
MARSHALL		LOUIS J. BLOCK
MEDILL		AVON S. HALL
MORGAN PARK		JOHN H. HEIL
PARKER		WILLIAM B. OWEN
PHILLIPS		SPENCER R. SMITH
SENN		BENJAMIN F. BUCK
TULEY		FRANKLIN P. FISK
WALLER		OLIVER S. WESTCOTT
CHICAGO PRIVATE SCHOOLS		
LATIN SCHOOL	R. P. BATES	
HARVARD SCHOOL	J. J. SCHOBINGER	
F. W. PARKER SCHOOL	FLORA J. COOKE	
KENWOOD INSTITUTE	MRS. STELLA DYER-LORING	
LOYOLA ACADEMY	SIMON NICHOLAS, SJ	
MORGAN PARK PREPARATORY SCHOOLS	HARRY D. ABELLS	
NORTH PARK COLLEGE ACADEMY	C. J. WILSON	
STARRETT SCHOOL FOR GIRLS	MRS. MARY G. WHITE	
UNIVERSITY HIGH SCHOOL	F. W. JOHNSON	
CHICAGO HEIGHTS	E. L. BOYER	
BLOOM T.P. HIGH SCHOOL	H. H. BAUMGARDNER	
CHILLICOTHE T.P.	P. M. WATSON	
CHRISMAN T.P.		
CICERO		
J. STERLING MORTON T.P.		
CLAYTON	W. H. BREWSTER	H. V. CHURCH
CLINTON	H. H. EDMUND	IRENE B. OLIN
COLFAX	P. M. HOKE	E. L. WALTERS
COLLINSVILLE T.P.		LIDA J. SMITH
CRANE, R. T. (TECH.) H. S. ( <i>Chicago</i> )	J. D. SHOOP	A. E. ARENDT
CRYSTAL LAKE	H. A. DEAN	W. J. BARTHOLF
CURTIS HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	C. E. SMALLEY
		THOMAS G. HILL

School	Superintendent	Principal
DALLAS CITY	ELSIE H. GIESE	RAY BABCOCK
DANVILLE	G. P. RANDLE	A. W. SMALLEY
DECATUR	J. O. ENGLEMANN	JESSE H. NEWLON
DeKALB Tp.		F. M. GILES
DELAVAN	M. R. STAKER	H. V. PORTER
DES PLAINES ( <i>Maine Tp.</i> )		C. M. HIMEL
DIVERNON Tp.		J. O. HUFF
DIXON		
HIGH SCHOOL	W. R. SNYDER	C. D. BOOKER
NORTH DIXON HIGH SCHOOL	H. H. HAGEN	GLADYS GAYLORD
DOWNER'S GROVE	G. C. BUTLER	M. MAUDE MANLEY
DRURY ACADEMY ( <i>Aledo</i> )		G. F. BAUMEISTER
DRUMMER Tp. ( <i>Gibson City</i> )		H. T. MCKINNEY
DUNDEE	J. V. CLARK	LULU MOULTON
DUQUOIN Tp.		J. G. STULL
DWIGHT	C. A. BROTHERS	ELLA M. BROWN
EARLVILLE	LLOYD B. MANN	NELLIE SMITH
EAST HIGH SCHOOL ( <i>Aurora</i> )	C. M. BARDWELL	K. D. WALDO
EAST MOLINE Tp.		D. B. HOFFMAN
EAST ST. LOUIS	D. WALTER POTTS	H. J. ALVIS
EDWARDSVILLE	CHARLES F. FORD	R. C. SAYRE
EFFINGHAM	O. C. BAILEY	CHARLES O. DANNEBURGER
ELDORADO Tp.		O. E. BARR
ELGIN		
HIGH SCHOOL	ROBERT I. WHITE	W. L. GOBLE
ELGIN ACADEMY		H. M. BUCKLEY
ELMHURST		
HIGH SCHOOL	A. M. NICHELSON	V. C. PLUMMER
EVANGELICAL PROSEMINAR		DANIEL IRION, <i>Dir.</i>
ELMWOOD	C. C. CONDIT	HARRIET ERLBACHER
EL PASO UNION	CARL B. MOORE	PAUL M. MULLIKEN
ENGLEWOOD HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	JAMES E. ARMSTRONG
EQUALITY Tp.		J. B. BOSWELL
EUREKA		
HIGH SCHOOL		F. D. THOMSON
COLLEGE PREP. SCHOOL		HOUTA S. BREDIN
EVANGELICAL PROSEMINAR ( <i>Elmhurst</i> )		DANIEL IRION, <i>Dir.</i>
EVANSTON		
TOWNSHIP HIGH SCHOOL		
EVANSTON ACADEMY		
FAIRBURY Tp.	H. D. WILLARD	
FAIRFIELD		
FARMER CITY		
MOORE Tp.		
FERRY HALL ( <i>Lake Forest</i> )	F. L. LOWMAN	
FISHER		
FLORA		
HARTER-STANFORD Tp.		
FORREST	DEAN PARRILL	
FRANCES SHIMER SCHOOL ( <i>Mt. Carroll</i> )		
FREEPORT	S. E. RAINES	
FULTON	H. V. BALDWIN	
GALENA	KATHARINE OBYE	
GALESBURG	W. L. STEELE	
GALVA	F. U. WHITE	
GENESEO Tp.		
GENEVA	H. M. COULTRAP	
GENOA	O. E. TAYLOR	
GEORGETOWN Tp.		
GIBSON CITY		
DRUMMER Tp.		
GILMAN	J. B. WALLACE	
GODFREY		
MONTICELLO SEMINARY		
GRAND PRAIRIE SEMINARY ( <i>Onarga</i> )		
GRANITE CITY	L. P. FROHARDT	MARTINA C. ERICKSON
GRAYVILLE	E. E. WALLER	HUBERT PHILLIPS
GREENFIELD	W. C. SUFT	W. F. COOLIDGE
GREENUP	CLYDE C. SIMS	EDWIN N. WRIGHT
GREEN VALLEY	EARL HIETT	ISLA F. SUTHERLAND
GREENVIEW	JACOB P. SCHEID	LULA K. SMITH
GREENVILLE	A. W. NIEDERMAYER	HENRIETTA EVANS
GRIGGSVILLE	T. C. MOORE	HAZEL ALKIRE
HALL Tp. ( <i>Spring Valley</i> )		ALEXANDA LONG
HAMILTON	J. A. JOHNSTON	GERTRUDE STEPHENS
HARLEM CONSOLIDATED SCHOOL ( <i>Rockford</i> )		E. L. BOST
HARRISBURG Tp.		PHILENA CLARKE
HARRISON TECHNICAL HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	EARL M. PALLET
HARTER-STANFORD Tp. ( <i>Flora</i> )		HARRY TAYLOR
HARVARD	J. H. LIGHT	FRANK L. MOSE
		S. J. CURLEE
		FLOYD E. DEWHIRST

School	Superintendent	Principal
HARVARD SCHOOL ( <i>Chicago</i> ) HARVEY THORNTON T.P.		J. J. SCHOBINGER
HAVANA	T. E. SAVAGE	L. W. SMITH
HEBRON	M. S. HAMM	MRS. SARA E. PIERCE
HENRY	W. E. KING	MAYBELLE TAYLOR
HERRIN T.P.		EMMA PONZER
HYDE PARK HIGH SCHOOL ( <i>Chicago</i> )		H. G. SPEAR
HEYWORTH	J. D. SHOOP	HIRAM B. LOOMIS
HIGHLAND	LEONODUS HARR	LOIS WHITE
HIGHLAND PARK	C. L. DIETZ	ADELLE GRUNEWALD
TOWNSHIP HIGH SCHOOL		R. L. SANDWICK
HILLSBORO	H. J. BECKMEYER	J. M. AVERY
HINCKLEY	OMAR CASWELL	EMMA B. RICHARDSON
HINDSBORO UNION	O. V. SCHAEFFER	MARGARET GERKIN
HINSDALE T.P.	C. E. DOUGLASS	
HITTLE T.P. ( <i>Armitage</i> )		OLGA V. HOFACKER
HOMER	G. B. WEISIGER	H. P. BANGELT
HOOPESTON	T. M. BIRNEY	W. R. LOWERY
HUME T.P.		W. F. WOLLENHAUPT
HUTSONVILLE T.P.		HARRY THRASHER
ILLINOIS WOMAN'S COLLEGE ACADEMY ( <i>Jacksonville</i> )		JOSEPH R. HARKER, <i>Pres.</i>
ILLIOPOLIS	W. P. SULLIVAN	LOUISE GATES
INDUSTRY T.P.		R. H. MALCOMSON
JACKSONVILLE	C. E. COLLINS	C. E. COLLINS
HIGH SCHOOL		JOSEPH R. HARKER, <i>Pres.</i>
ILLINOIS WOMAN'S COL. ACAD.		REV. JOHN W. CROWE, <i>Pres.</i>
ROUTE COLLEGE ACADEMY		C. H. GIVAN
WHIPPLE ACADEMY		BERTHA A. BARBER
JENNINGS SEMINARY ( <i>Aurora</i> )	D. R. HENRY	C. J. RAMSAY
JERSEYVILLE	F. D. HARWOOD	E. D. LAWRENCE
JOHNSTON CITY		K. M. SNAPP
JOHN SWANEY SCHOOL ( <i>McNabb</i> )		J. STANLEY BROWN
JOINT T.P. ( <i>Tiskilwa</i> )		H. V. CHURCH
JOLIET T.P.		W. R. TOWNSLEY
J. STERLING MORTON T.P. ( <i>Cicero</i> )		RUTH LINDER
KANKAKEE	F. N. TRACY	ETHEL STUART
KANSAS	R. B. HENLEY	II. E. BROWN
KEITHSBURG	R. C. HIETT	MRS. STELLA DYER-LORING
KENILWORTH		I. P. RINKER
NEW TRIER T.P.		GUS A. SPITZE
KENWOOD INSTITUTE ( <i>Chicago</i> )		PEARL HARRIS
KEWANEE	W. R. CURTIS	F. W. DAVIS
KINMUNDY	LAURA E. FISHER	
KNOXVILLE	G. G. LAFFERTY	G. H. WILKINSON
LA CON UNION	R. W. SCHEER	JANE ROBERTSON
LAGRANGE		EDWARD F. STEARNS
LYONS T.P.		JOHN W. RICHARDS
LAHARPE	J. A. STEWART	MARION COATS
LAKE HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	B. FRANK BROWN
LAKE FOREST		ELLEN LOUISE STOY
LAKE FOREST ACADEMY		
FERRY HALL		
LAKE VIEW HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	
LANARK	CHARLES S. COBB	
LANE TECHNICAL HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	
LA SALLE-PERU T.P. ( <i>La Salle</i> )		
LATIN SCHOOL ( <i>Chicago</i> )		
LAWRENCEVILLE T.P.		
LENA	F. P. DONNER	
LEROY	BERT REEVES	
LEWISTOWN	C. B. SMITH	
LEXINGTON	THEODORE F. FIEKER	
LIBERTYVILLE	F. L. HOLCH	
LINCOLN	H. A. PERRIN	
LITCHFIELD	WILLIAM HAWKES	
LOCKPORT T.P.		
LOLA	P. T. WALTERS	
LOVINGTON T.P.		
LOYOLA ACADEMY ( <i>Chicago</i> )		
LUCY FLOWER TECHNICAL HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	
LYONS T.P. ( <i>LaGrange</i> )	A. E. NYE	
MCHENRY	ELLA FLAGG YOUNG	
MCINLEY HIGH SCHOOL ( <i>Chicago</i> )	W. H. EARNHART	
MCLEAN	LOUIS A. UHE	
MCLEANSBORO		
		DORA WELLS
		G. H. WILKINSON
		F. J. DORR
		GEORGE M. CLAYBERG
		BELLE FAIRFIELD
		HELEN HARGETT

School	Superintendent	Principal
McNABB JOHN SWANEY SCHOOL.		E. D. LAWRENCE
MACOMB HIGH SCHOOL WEST. ILL. NOR. ACAD.	A. L. MANGUN	B. H. WATT
MADISON MAGNOLIA	J. W. JACKSON	W. P. MORGAN, <i>Pres.</i>
MAINE TP. ( <i>Des Plaines</i> )	ROY L. DAVIS	H. H. JANSEN
MANSFIELD	LLOYD GOHN	MARGARET C. BAILEY
MANTENO	C. W. EATON	C. M. HIMEL
MANUAL TRAINING HIGH SCHOOL ( <i>Peoria</i> )	E. A. GARDNER	ETHEL A. RANSON
MARENGO		EDNA BRAND
MARION TP.		WILLIAM N. BROWN
MARISSA TP.		CHARLES O. HASKELL
MAROA	L. R. BLOHM	OREN COLEMAN
MARSEILLES	E. A. COLLINS	M. L. McMANUS
MARSHALL HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	ERNA RELLER
MARSHALL TP.		ELINORE E. BATES
MARTINSVILLE	HARVEY M. NICKELS	LOUIS J. BLOCK
MASON CITY	G. A. BAZZARD	LEWIS WILLIAMS
MATTOON	J. F. WILEY	HARRY L. RYAN
MAYWOOD		NETTIE C. JENCKS
PROVISO TP.		H. B. BLACK
MAZON TP.		
MEDILL HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	JOHN E. WITMER
MENDON	G. A. HILLIER	E. C. SHIELDS
MENDOTA	J. H. BROWNING	AVON S. HALL
METROPOLIS	M. N. McCARTNEY	RUTH H. FRASER
MILFORD TP.		B. J. DEAN
MINONK	GUY R. FRENCH	MRS. ROSE CUTTING
MOLINE	LEWIS A. MAHONEY	H. W. McCULLOCH
MOMENCE	T. B. JOHNSTON	GRETCHEN SCHIFFEAUER
MONMOUTH	C. E. JOINER	E. P. NUTTING
MONTICELLO	A. W. GROSS	E. E. WHEELER
MONTICELLO SEMINARY ( <i>Godfrey</i> )		MARY FINDLEY
MOORE TP. ( <i>Farmer City</i> )		RUBY L. ALLEN
MORGAN PARK HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	MARTINA C. ERICKSON
MORGAN PARK PREPARATORY SCHOOLS ( <i>Chicago</i> )		H. D. EICKELBERG
MORRIS	E. D. MARTIN	JOHN H. HEIL
MORRISON	W. E. WEAVER	
MORRISONVILLE	P. A. TATE	HARRY D. ABELLS
MORTON TP.		L. C. ROBEY
MOUND CITY	C. L. McCABE	MARY L. BARNES
MT. CARMEL	A. S. ANDERSON	MATILDA I. PINKERTON
MT. CARROLL		T. L. COOK
HIGH SCHOOL	G. V. CLUM	MARY ROBERSON
FRANCES SHIMER SCHOOL		J. T. DORRIS
MT. MORRIS COLLEGE ACADEMY		
MT. PULASKI TP.		ZELLA A. PETTY
MT. STERLING		W. P. McKEE, <i>Dean</i>
MT. VERNON TP.	M. L. TEST	J. S. NOFFSINGER, <i>Pres.</i>
MOWEAQUA		L. F. FULWILER
MURPHYSBORO TP.	C. W. YERKES	CLARA L. DOOCY
NAPERVILLE		SILAS ECHOLS
HIGH SCHOOL	O. A. WATERMAN	CHESTER F. LAY
NORTHWESTERN COL. ACAD.		G. J. KOONS
NASHVILLE	W. C. FAIRWEATHER	
NEOGA TP.		V. BLANCHE GRAHAM
NEWMAN TP.		C. J. ATTIG
NEWTON		WALTER KRUMSIEK
NEW TRIER TP. ( <i>Kenilworth</i> )	C. E. GIRHARD	W. L. HAGAN
NOKOMIS		J. H. TRINKLE
NORMAL	W. P. THACKER	R. A. DEFFENBAUGH
HIGH SCHOOL	C. F. MILLER	H. E. BROWN
UNIVERSITY HIGH SCHOOL		BESSIE PATTON
NORTH HIGH SCHOOL ( <i>Dixon</i> )	H. H. HAGEN	
NORTH PARK COLLEGE ACADEMY ( <i>Chicago</i> )		R. W. PRINGLE
NORTHWESTERN COLLEGE ACADEMY ( <i>Naperville</i> )		GLADYS GAYLORD
OAK PARK & RIVER FOREST TP. ( <i>Oak Park</i> )		C. J. WILSON
OBLONG TP.		C. J. ATTIG
OLNEY TP.		M. R. McDANIEL
ONARGA		V. I. BROWN
HIGH SCHOOL	S. E. LE MARR	H. W. HOSTETTLER
GRAND PRAIRIE SEMINARY		
OREGON	F. G. TAYLOR	LILLIAN SAVAGE
OTTAWA TP.		HUBERT PHILLIPS
PALATINE TP.		SUE L. WILSON
PALESTINE TP.		CHARLES H. KINGMAN
		CHARLES E. LOWMAN
		D. B. FAGER

*Admission*

School	Superintendent	Principal
PANA T.P.		
PARIS		
PARKER HIGH SCHOOL ( <i>Chicago</i> )	J. G. MOORE	W. E. ANDREWS
F. W. PARKER SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	T. J. BEECHER
PAWNEE T.P.		WILLIAM B. OWEN
PAW PAW		FLORA J. COOKE
PAXTON		W. B. ROSE
PEKIN		GRACE M. CURRIER
PEORIA		S. D. HUDDLESTON
ACADEMY OF OUR LADY		F. B. MORGAN
AVERYVILLE HIGH SCHOOL	HARRY E. ILER	SISTER MARIETTA
BRADLEY POLYTECH. INST.		HAZEL BROAD
CENTRAL HIGH SCHOOL	G. T. SMITH	T. C. BURGESS, <i>Dir.</i>
MANUAL TRAINING HIGH SCHOOL		A. W. BEASLEY
PEOTONE	G. W. LAWRENCE	WILLIAM N. BROWN
PETERSBURG	T. H. FINLEY	G. W. LAWRENCE
PHILLIPS HIGH SCHOOL ( <i>Chicago</i> )	J. D. SHOOP	BEULAH M. WOOD
PITTSFIELD	J. C. REEDER	SPENCER R. SMITH
PLANO	H. L. TATE	NELLIE A. MOORE
POLO	C. H. ANDERSON	MR. COBLE
PONTIAC T.P.		E. L. DAVIS
PRINCETON T.P.		ARTHUR VERNER
PRINCEVILLE		W. R. SPURRIER
PROPRIETSTOWN		ORPHA JOHNSON
PROVISO T.P. ( <i>Maywood</i> )	W. M. LOY	CECILIA WHELPLEY
QUINCY	V. R. MCKNIGHT	JOHN E. WITMER
HIGH SCHOOL		ZENS L. SMITH
ST. MARY'S ACADEMY	E. G. BAUMAN	MOTHER MARY PETRA
RANTOUL		JESSIE McHARRY
RAYMOND	E. H. MILLER	O. B. WRIGHT
RICHMOND	E. F. MITCHELL	PEARL C. MARSDEN
RIDGEFARM T.P.	OZWELL G. TREADWAY	L. A. TOHILL
RIVERSIDE T.P.		T. H. ZIEGLER
ROBINSON T.P.		J. O. MARBERRY
ROCHELLE		R. M. LADD
ROCK FALLS		MISS COWING
ROCKFORD		C. P. BRIGGS
HIGH SCHOOL	R. G. JONES	EARL M. PALLET
HARLEM CONSOLIDATED SCHOOL		SISTER M. GABRIELLA
ST. THOMAS SCHOOL		
ROCK ISLAND		
HIGH SCHOOL	E. C. FISHER	A. J. BURTON
AUGUSTANA COL. ACAD.		J. MAURITZSON
VILLA DE CHANTAL	MOTHER BORGIA	SISTER MARY AGNES
ROLLO CONSOLIDATED		ALFRED TATE
ROODHOUSE		S. T. WALLAGE
ROSEVILLE T.P.	J. F. PURSIFULL	M. P. WILKINS
ROSSVILLE		O. H. WORLEY
RUSHVILLE	I. A. SMOTHERS	LAURA L. KNOWLES
ST. ANNE	C. E. KNAPP	RUTH C. BECKER
ST. CHARLES	E. L. KIMBALL	MARY LANGWILL
ST. ELMO	M. F. McAULEY	ERNEST T. JACKSON
ST. MARY'S ACADEMY ( <i>Quincy</i> )	CHARLES E. KUECHLER	MOTHER MARY PETRA
ST. MARY'S HIGH SCHOOL ( <i>Bloomington</i> )		REV. M. WELDON
ST. THOMAS SCHOOL ( <i>Rockford</i> )		SISTER M. GABRIELLA
SALEM		E. W. RODGERS
SANDWICH	H. J. BLUE	MAUDE WEBSTER
SAVANNA T.P.	W. W. WOODBURY	W. F. MARTIN
SAYBROOK		FRANCES HANSON
SENN HIGH SCHOOL ( <i>Chicago</i> )	GEORGE WHITE	BENJAMIN F. BUCK
SHEFFIELD	J. D. SHOOP	J. H. MARTIN
SHELBYVILLE	J. H. MARTIN	I. B. POTTER
SHELDON	A. F. LYLE	J. A. VANKIRK
SIDELL T.P.	P. F. GROVE	V. W. MCINTIRE
SOUTHERN COLLEGIATE INST. ( <i>Albion</i> )		
SOUTHERN ILLINOIS NORMAL UNIV.		F. G. WARREN
HIGH SCHOOL ( <i>Carbondale</i> )		ST. JOHN W. WILTON
SPARTA T.P.		
SPRINGFIELD		I. M. ALLEN
HIGH SCHOOL	H. S. MAGILL, JR.	MOTHER ANTONIA
URSULINE ACADEMY		
SPRING VALLEY		
HALL T.P.		E. L. BOST
STANFORD	C. W. MOORE	MRS. C. W. MOORE
STAUNTON	WILLIAM E. ECCLES	ELLEN A. MUIR
STERLING T.P.		E. T. AUSTIN
STOCKLAND T.P.		OTTIS HOSKINSON
STOCKTON		EMANUEL HALBICH
STONINGTON	J. C. MYERS	NELL BLODGETT
STREATON T.P.	G. E. LOWRY	O. A. RAWLINS
STRONGHURST		LUCILE WHITE
SULLIVAN	W. S. POPE	OLIVE E. MARTIN
	B. H. GAULT	

School	Superintendent	Principal
SYCAMORE TAYLORVILLE Tp. THORNTON Tp. ( <i>Harvey</i> ) TISKILWA JOINT Tp.	O. E. PETERSON	A. G. UMBREIT R. G. BEALS L. W. SMITH
TOLUCA TOULON Tp. TULEY HIGH SCHOOL ( <i>Chicago</i> ) TUSCOLA UNION ACADEMY ( <i>Anna</i> ) UNIVERSITY HIGH SCHOOL ( <i>Chicago</i> ) URBANA URSULINE ACADEMY ( <i>Springfield</i> ) VANDALIA VERMILION GROVE VERMILION ACADEMY	J. H. GLAESER J. D. SHOOP W. D. WALDRIP A. P. JOHNSON	K. M. SNAPP MARGARET O'BIRNE E. L. MENDENHALL FRANKLIN P. FISK J. C. HAMMOND W. O. SHEWMAKER F. W. JOHNSON M. L. FLANINGAM MOTHER ANTONIA FRANK GRAY
VIENNA Tp. VILLA DE CHANTAL ( <i>Rock Island</i> ) VILLA GROVE VIRDEN VIRGINIA WALLER HIGH SCHOOL ( <i>Chicago</i> ) WALNUT WARREN WARSAW WASHBURN Tp. WASHINGTON WATERLOO WATSEKA WAUKESHA Tp. WAVERLY Tp. WENONA WEST CHICAGO WEST HIGH SCHOOL ( <i>Aurora</i> ) WESTERN ILLINOIS STATE NORMAL ACADEMY ( <i>Macomb</i> ) WESTERN MILITARY AND NAVAL ACADEMY ( <i>Alton</i> ) WESTVILLE Tp. WHEATON	H. L. DYAR CLYDE SLONE H. S. STICE J. D. SHOOP R. GRIGSBY R. I. LEWIS L. FAIRFAX P. M. SMITH JAMES E. RAIBOURN L. W. HAVILAND R. E. GARRETT H. H. KIRKPATRICK S. K. McDOWELL J. B. RUSSELL J. B. HENDRICKS GUY W. BEDELL J. W. MORGAN R. D. BARDWELL C. W. PRATT F. W. ACKERMAN	S. R. LAMB M. T. VANCLEVE SISTER MARY AGNES E. C. FRANKLIN G. G. SCEARCE LAURA MASON OLIVER S. WESTCOTT E. A. LANSCHE MARY JOHNSTON L. ADA KREIDER V. G. CATLIN CHARLES F. STEINER MARY J. LAYCOCK W. C. KNOELK L. W. RAGLAND IRMA M. BUMGARNER LAURA G. WHITMIRE K. C. MERRICK W. P. MORGAN, <i>Pres.</i> GEORGE D. EATON SHERMAN CASS ELLA M. GREGG WILLIAM RICE C. H. GIVAN ROBERT G. SMITH PAUL S. CONKLIN G. W. BOTTERON JESSIE E. JEWEET A. LAUDER ELIZABETH HATCH

## PARTIALLY ACCREDITED SCHOOLS

EAST ST. LOUIS LINCOLN HIGH SCHOOL FARMINGTON	E. A. HUFF	J. W. HUGHES ROSE HUTCHINS
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## DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum number of credits assigned is shown by the description of subjects below.

1. **AGRICULTURE.**—Courses in agriculture should be arranged for periods of not less than 36 weeks. Such a course may be accepted for one unit of entrance credit, and two such courses may be accepted for two units, provided the work covered by each course is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work. At least one-half the time should be devoted to laboratory work, and note-books should be presented.

2. **ALGEBRA, One and one-half units.**—Fundamental operations, factoring, fractions, simple equations, extraction of roots, radicals, quadratic equations and equations reducible to quadratic form, surds, theory of exponents, proportion and variation, logarithms, and the analysis and solution of problems involving these principles.

**ALGEBRA, One unit.**—Fundamental operations, factoring, fractions, simple equations, extraction of roots, radicals of second order, fractional exponents, variation and proportion, quadratics, including completing the square and simultaneous equations having one quadratic and one linear equation and quadratic systems of simple form.

See High School Manual for detailed outline of first year of algebra. *Students desiring to continue their study of mathematics in the University will need to present one and one-half units of algebra.*

**3. ASTRONOMY.**—In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the conspicuous naked-eye heavenly bodies.

**4. BOOKKEEPING.**—The unit of work in bookkeeping for college entrance should consist of a working knowledge of both single and double entry bookkeeping for the usual lines of business. The student should be able to change his books from single to double entry and from individual to proprietorship. At least one set of transactions should be kept by single entry and at least two sets by double entry in which the uses of the ordinary bookkeeping books and commercial papers should be involved. The student should be drilled in the making of profit and loss statements and of balance sheets and should be able to explain the meanings of the items involved in both kinds of instruments. The work should be done under the immediate supervision of a teacher and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.

**5. BOTANY.**—A familiar acquaintance with the general structure of plants and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required; also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory note-books and herbarium collections should be presented.

**6. BUSINESS LAW.**—The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's Elements of Commercial Law, Burdick's Business Law, and White's Elements of Commercial Law.

**7. CHEMISTRY.**—The instruction must include both text-book and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as is given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.

**8. CIVICS.**—Such an amount of study of the American Government, its history and interpretation, as is indicated by any of the usual high-school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.

**9. COMMERCIAL GEOGRAPHY.**—The amount and character of the work accepted in this subject is indicated by the scope of such books as Redway's Commercial Geography, Adam's smaller book on the same subject, the text-books of Brigham, or Robinson, or Trotter's work.

10. DOMESTIC SCIENCE.—(a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work). Of the foregoing (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.

11. DRAWING.—Free-hand or mechanical drawing, or both. Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.

12. ECONOMICS.—The principles of economics, with economic history, as given in any good elementary text-book.

13. ENGLISH COMPOSITION AND RHETORIC.—Correct spelling, capitalization, punctuation, paragraphing, idiom and definition; the elements of rhetoric. The candidate will be required to write two paragraphs of about one hundred fifty words each to test his ability to use the English language. This work counts for one unit.

14. ENGLISH LITERATURE.—(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an examination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups from which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.

I. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Virgil's Aeneid. The Iliad, the Odyssey, and the Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

II. Shakespeare's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.

III. Defoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe or Quentin Durward; Hawthorne's House of Seven Gables; Dickens' David Copperfield or Tale of Two Cities; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; George Eliot's Silas Marner; Stevenson's Treasure Island.

IV. Bunyan's Pilgrim's Progress, Part I; The Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography (condensed); Irving's Sketch Book; Macaulay's Essays on Lord Clive and Warren Hastings; Thackeray's English Humorists; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, with a brief memoir or estimate; Parkman's Oregon Trail; either Thoreau's Walden or selection from Huxley's Lay Sermons; Stevenson's Inland Voyage and Travels with a Donkey.

V. Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, Burns; Gray's Elegy in a Country Churchyard and Goldsmith's Deserted Village; Coleridge's Ancient Mariner and Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Byron's Childe Harold, Canto IV, and Prisoner of Chillon; Palgrave's Golden Treasury (First Series) Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's Raven, Longfellow's Courtship of Miles Standish, Whittier's Snow Bound; Macaulay's Lays of Ancient Rome and Arnold's Sohrab and Rustum; Tennyson's Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City.

(b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of the history of either English or American literature.

(c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1916 the books will be selected from the list below. The examination will be of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is:

Shakespeare's Macbeth; Milton's Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

The work outlined in (a), (b), and (c) counts for two units.

(d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.

15. FRENCH, *First year's work*.—Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read.

*Second year's work*.—Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read.

*Third year's work*.—Intermediate composition, and conversation. About 500 pages of standard authors should be read, including a few classics.

*Fourth year's work*.—Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.

16. GEOLOGY.—The student must show familiarity with the principles of dynamic and structural geology, and some acquaintance with the facts of historical geology as presented in Scott's Introduction to Geology, Brigham's Text-book of Geology, or an equivalent, together with at least an equal amount of time spent in laboratory and field work. The laboratory work should follow one or more of the lines indicated below, and note-books should be presented showing the character and amount of work done. (a) Studies of natural phenomena occurring in the neighborhood which illustrate the principles of dynamic geology. Each study should include a careful drawing of the object and a written description of the way in which it was produced. (b) Studies of well-

marked types of crystalline, metamorphic, and sedimentary rocks which will enable the student to recognize each type and state clearly the conditions under which it was formed. (c) Studies of minerals of economic value, including the characteristics of each, its origin, and the uses to which it is put. (d) Studies of the types of soil occurring in the neighborhood, including the origin of each and the cause of differences in appearance and fertility.

17. GEOMETRY.—(a) *Plane Geometry*. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.

(b) *Solid and Spherical Geometry*. Applications to the solution of original exercises are emphasized.

18. GERMAN.—It is recommended that pupils be trained to understand spoken German and to reproduce freely in writing and orally what has been read. Whatever method of teaching is used, however, a thoro knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years, but the German department welcomes inquiries from teachers who wish further suggestions in the planning of courses.

*First Year's Work*.—At the end of the year pupils should be able to read intelligently and with accurate pronunciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may well be memorized. Elementary grammar should be mastered up to the subjunctive as arranged in most books for beginners. Easy prose composition rather than the writing of forms will be the test of this grammatical work in entrance examinations given by the University.

*Second Year's Work*.—Only modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself readily to conversational treatment in the class room. The regular recitations should afford constant oral and written drill on the elementary grammar of the previous year. In addition, the beginner's book should be completed, but more importance is attached to accuracy and facility in simple modes of expression than to a theoretical knowledge of advanced syntax.

*Third Year's Work*.—Most of the time should still be devoted to good modern prose. There should be some work in advanced prose composition—based on German models—and the daily recitations should continue to afford abundant oral practise. Pupils ought by this time to understand spoken German fairly well.

*Fourth Year's Work*.—At the end of this year a pupil should be able to read at sight any prose or verse of moderate difficulty. He should also be able to express himself orally or in writing with considerable readiness and a high degree of accuracy. It is recommended that work in composition take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.

19. GREEK, *First Year's Work*.—The exercises in any of the beginning books, and one book of the *Anabasis* or its equivalent.

*Second Year's Work*.—Two additional books of the *Anabasis* and three of Homer, or their equivalents, together with an amount of Greek prose composition equal to one exercise a week for one year.

*Third Year's Work.*—Three additional books of the Iliad, three of the Odyssey, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

20. HISTORY.—One, two, or three units may be presented, to be chosen from the following list:

Ancient history to 800 A. D., one unit.

Medieval and modern history, one unit.

English history, one-half or one unit.

American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full year of high-school work.

21. LATIN, *First Year's Work.*—Such knowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories.

*Second Year's Work.*—Four books of Caesar's Gallic War, or its equivalent in Latin of equal difficulty; the ability to write simple Latin based on the text.

*Third Year's Work.*—Six orations of Cicero; the ability to write simple Latin based on the text; the simpler historical references and the fundamental facts of Latin syntax.

*Fourth Year's Work.*—Six books of Virgil's Aeneid, with history and mythology; the scansion of hexameter verse.

22. MANUAL TRAINING.—The requirement for one unit is the equivalent of 360 forty-minute periods in manual training following the syllabus prepared by the manual-training section of the High School Conference.

23. MUSIC.—At the present time, no high schools are accredited in music, and credit is therefore given only by examination at the University. As fast as possible, schools offering acceptable work in music will be accredited therefor. In the examination for two units in *piano*, students are required to play the following or the equivalent: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, two-part invention; Czerny, Op. 229; an easy sonata of Haydn, Mozart, or Beethoven. In the examination for two units in *voice*, students are required to sing the following or the equivalent: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and Mendelssohn. In the examination for two units in *violin*, students are required to play the following or the equivalent: Gordon's Fountain Studies; Hermann's Scale Studies; Wahlfahrt's Etudes, Book I; Kayser's Etudes; Pleyel, Duet; selections from Weiss and Blumenstengel; miscellaneous pieces by Daucla, Papini, Weidig, Sitt, etc.

24. PHYSICS.—One year's high-school work covering the elements of physical science as presented in the best of the current high-school text-books of physics. Laboratory practise in elementary quantitative experiments should accompany the text-book work. The candidate's laboratory note-book will be considered as part of the examination.

25. PHYSICAL GEOGRAPHY.—The amount and character of the work required may be seen by referring to the texts of Tarr; Salisbury, Barrows and Tower; Gilbert and Brigham; or Davis; the recitations must be supplemented by at least an equal amount of time devoted to laboratory work. The laboratory

exercises should follow one or more lines such as are indicated below. Each student should present a note-book showing what he has done.

(a) Studies in mathematical geography in which map and scale only are used. These should embrace such topics as length of a degree in longitude in various latitudes; length and breadth of continents, etc., in degrees and miles; relative latitudes of places; distances between cities, etc., in degrees and miles; difference in length of parallels and meridians; problems in time; location of time belts, etc.

(b) Studies of local topographic features which illustrate the various phases of stream work. Each study should include a drawing or topographic map of the object, and a full, clear description of the way in which it was formed.

(c) Studies of glacial deposits as shown in terminal and ground moraines, kames, eskers, etc., distribution of dark and light colored soils; occurrences of lakes, ponds, gravel beds, clay banks, and waterbearing strips of sand and gravel.

(d) Studies of stream work as shown in the topographical sheets which may be obtained from the United States Geological Survey at a nominal cost.

(e) Studies of the form, size, direction and rate of movement of high and low barometer areas, and the relation of these to direction of wind, character of cloud, distribution of heat, and amount of moisture in the air, as shown in the daily weather maps. Later these studies should lead to the making of weather maps from the data furnished by the daily papers, and to local prediction of weather changes based on the student's own observation.

(f) Studies of the climate of various countries compared with our own, the necessary data being derived from such topographic, rainfall, wind, current, and temperature maps as are found in Sydow-Wagner's or Longman's atlases.

26. PHYSIOLOGY.—For one-half unit: The anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (*Briefer Course*). For more than one-half unit, the course must include practical laboratory work.

27. SPANISH, *First Year's Work*.—Elementary grammar, including thorough drill in the irregular verbs; careful training in pronunciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation.

*Second Year's Work*.—In addition to the foregoing, about 300 pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.

28. TRIGONOMETRY.—The work should cover the field of plane trigonometry, as given in standard text-books, including the solution of right and oblique triangles. Special emphasis is placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.

29. ZOOLOGY.—The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must, of course, determine the nature of the work done and the kind of animals studied; but in

any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characters, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.

# GRADUATION---FIRST DEGREES

## THE BACHELOR'S DEGREE

A bachelor's degree is conferred upon any student who satisfactorily completes the curriculum described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

### Residence Requirement

If the student is in residence at the University for one year only, that year's work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

### Number of Hours Required

A candidate for a bachelor's degree must pass in the subjects marked *prescribed* in his chosen curriculum, and must conform to the directions given in connection with that curriculum in regard to electives. In the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, and the College of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, in the Library School, and in the School of Music, the candidate must complete the curriculum as laid down.

In order to receive his bachelor's degree a student must have secured grades of not less than 75 in subjects aggregating at least three-fourths of the work, prescribed or elective, required for such degree.

### Military Science and Physical Training

The number of hours required includes, for men, five in military drill and tactics and two in physical training; and for women, three in physical training. Men excused from the military requirements, and women who do not take the course in physical training, must elect instead an equivalent number of hours in other subjects.

### Thesis

In all cases in which a thesis is required\*, the subject must be announced not later than the first Monday in November, and the completed thesis must be submitted to the dean of the proper college by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the curriculum for which a degree is expected. The thesis must be presented upon regulation paper; it is deposited in the library of the University.

### Second Bachelor's Degree

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both degrees be fully met, and provided also that the curriculum offered for the second degree include at least 30 semester hours not counted for the first degree.

\*See requirements for graduation in the various colleges.

**LIST OF FIRST DEGREES**

1. The degree of **BACHELOR OF ARTS** is conferred on those who complete a curriculum in literature and arts, or certain curriculums in science, in the College of Liberal Arts and Sciences.
2. The degree of **BACHELOR OF SCIENCE** is conferred on those who complete a curriculum in the College of Engineering, in the College of Commerce and Business Administration, or in the College of Agriculture. This degree is conferred on a graduate of the College of Liberal Arts and Sciences who completes a curriculum in chemistry and may be conferred on graduates from other curriculums in this College on recommendation of the faculty. It may also be conferred upon students who offer two years of acceptable college work for admission to the College of Medicine and complete the two years of scientific work in medical subjects and subjects preparatory to medicine which are offered in the Junior College; on the completion of the two additional years in clinical work offered in the Senior College, such students may receive the degree of Doctor of Medicine.
3. The degree of **BACHELOR OF LAWS** is conferred on those who complete the curriculum in the College of Law.
4. The degree of **DOCTOR OF LAW** is conferred on those who complete the curriculum in the College of Law, satisfying certain special requirements additional to those for the degree of Bachelor of Laws.
5. The degree of **BACHELOR OF LIBRARY SCIENCE** is conferred on those who complete the curriculum in the Library School.
6. The degree of **BACHELOR OF MUSIC** is conferred on those who complete one of the curriculums in the School of Music.
7. The degree of **DOCTOR OF MEDICINE** is conferred on those who complete the curriculum in the College of Medicine.
8. The degree of **DOCTOR OF DENTAL SURGERY** is conferred on those who complete the curriculum in the College of Dentistry.
- 9, 10. The degree of **GRADUATE IN PHARMACY**, or of **PHARMACEUTICAL CHEMIST**, is conferred on those who complete the shorter and the longer curriculums, respectively, in the School of Pharmacy.

# HONORS AND COMPETITIONS

## UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors.

### Preliminary Honors

*Preliminary Honors* are assigned at the completion of the sophomore year on the basis of the average of the grades received during the freshman and sophomore years in all studies except military and physical training. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. A failure in any subject disqualifies a student from receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

### Final and Special Honors

*(Candidates for the Degrees of B.S., B.Mus., LL.B., and B.L.S.)*

*Final Honors* are assigned on graduation on the basis of the average grades received during the junior and senior years. The number of persons to whom final honors are awarded may not exceed one-tenth of the membership of the senior class. A failure in any subject during the junior and senior years disqualifies a student from receiving these honors. Final honors are designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors.

*Special Honors* are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special honors who, during the senior year, has received a grade of less than eighty per cent. in any subject. Special honors are planned for especially brilliant students who prefer to concentrate their efforts upon a special course. A student may be a recipient of both final and special honors.

### The Degree of Bachelor of Arts with Honors

The faculty of the College of Liberal Arts and Sciences have been authorized to recommend candidates for the degree of Bachelor of Arts *with honors* in a particular subject. Candidates for the degree with honors will be recommended by the faculty under the following conditions:

- (1) The student must have completed the work offered for his major with an average of not less than 90.
- (2) He must have completed the work offered for his minor with an average of not less than 85.
- (3) Each candidate is required to present a thesis in his major subject.

(4) Especially poor or careless work in any other subject may, by vote of the faculty, cause the honor degree to be withheld.

The purpose of these honors is not to encourage premature specialization, but to give special recognition to students who have pursued with success correlated courses of study, and to emphasize the importance, for scholarship in any subject, of thoro training in other related subjects. Candidates should announce their intention as early as possible in their college course and consult freely with the head of the department concerned in regard to the selection of their studies.

Candidates for the degree of Bachelor of Science in the College of Liberal Arts and Sciences are eligible for final and special honors under the regulations stated on page 99.

#### Freshman Honors

##### *(College of Liberal Arts and Sciences)*

At the close of each year a list is prepared of those members of the freshman class in the College of Liberal Arts and Sciences who have made an especially good record in scholarship. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

#### List of Honors

The names of the students who received honors under the foregoing regulations during the academic year 1914-15 are published in Part VI of this Register.

### DEBATING AND ORATORY

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley a gold watch-fob is presented to every speaker who represents the University, either in debate or in oratory.

THE I. M. I. DEBATING LEAGUE consists of the Universities of Illinois, Minnesota, and Iowa. It holds a debate at each university on the first Friday in December.

THE MIDWEST DEBATING LEAGUE consists of the Universities of Illinois, Michigan, and Wisconsin. It holds a debate at each university on the third Friday in March.

THE NORTHERN ORATORICAL LEAGUE, consisting of Northwestern University, Oberlin College, and the state Universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contest for 1916 will be held on May 5, at the University of Illinois. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place, fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

THE INTERCOLLEGIATE PEACE ASSOCIATION holds annual state and inter-state oratorical contests to which representatives of this University are eligible. Orations must be upon some phase of the peace question. Cash prizes are offered in both contests.

A FRESHMAN-SOPHOMORE DEBATE and an INTER-SOCIETY DECLAMATION CONTEST are held yearly.

The names of students who represented the University in debate and oratory in 1914-15 are given in the list of honors at the end of this volume.

#### **The Interscholastic Oratorical Prize**

A medal of the value of twenty dollars, and two medals of the value of ten dollars each, are offered annually by the University to the high schools of the State for the best orations delivered in a competitive contest between their representatives. This contest takes place in the spring at the time of the interscholastic athletic meet—in 1916, on May 12.

#### **THE BRYAN PRIZE**

In 1908 Mr. William Jennings Bryan gave to the University the sum of two hundred fifty dollars, from the interest on which a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand, nor more than six thousand words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It will be offered next in 1917.

#### **B'NAI B'RITH PRIZES**

The Champaign and Urbana lodge of the Independent Order of B'nai B'rith has donated to the University the sum of fifty dollars, to be awarded in prizes to students of the University for essays on Jewish subjects. The sum named is the third of five annual contributions to be given for this purpose. For information in regard to the conditions governing the awarding of the prizes, address the Registrar, University of Illinois, Urbana, Illinois.

#### **ARCHITECTURE**

##### **The Francis J. Plym Fellowship in Architecture**

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897, the Trustees have been enabled to establish a fellowship for the advanced study of architecture. The stipend attached to this fellowship is \$1,000, awarded annually by competition in Architectural Design. The holder of the fellowship is required to spend a year in study and travel abroad. For further information address the Department of Architecture.

##### **The Joseph C. Llewellyn Prize in Architectural Engineering**

In June, 1913, Mr. Joseph C. Llewellyn, of Chicago, a graduate of the University of the class of 1877, established, for a period of four years, a prize of fifty dollars per annum for a problem in design, the competition being limited to students in architectural engineering.

##### **The American Institute of Architects Medal**

Beginning with the class of 1915, the American Institute of Architects offer annually a medal for award to the senior in the department of architecture whose development during the four years' course is the most consistent and best. In making the award the scholarship in all work is considered.

##### **The Scarab Medal in Architecture**

In order to stimulate interest in the work in architecture, the Scarab Society of the department of architecture offers annually a bronze medal to be awarded

during the second semester for the best solution of a problem in architectural design, the competition being limited to students in architecture.

THE PRIZE IN ARCHITECTURE of the American Academy in Rome is open for competition among qualified undergraduates and graduates of certain American architectural schools, including that of the University of Illinois. This prize grants three years of residence and travel abroad for the study of classic and renaissance architecture.

### MILITARY CONTESTS AND PRIZES

#### The University Bronze Medals

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry companies and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practice are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the Annual Register of the University for the following year. (See Part VI.)

#### The University Gold Medal

The Board of Trustees provides annually a gold medal which is to be awarded, at the annual competitive drill held near the close of the year, to the best drilled student, whose property the medal becomes. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than 85, and three semesters' work in Military 2 with a grade of not less than 90; and he must have an average standing of not less than 80 per cent. in all of his other studies for the preceding semester, which standing shall be determined by the Registrar. The name of the winner is published in the Annual Register of the University for the following year. The reward is made for excellence in the same details as in the Hazelton contest.

#### The Hazelton Prize Medal

Captain W. C. Hazelton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year; must have had less than five unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

1. Erectness of carriage, military appearance, and neatness
2. Execution of the school of the soldier, without arms
3. Manual of arms, with and without numbers

The name of the successful competitor is published in the Annual Register of the University for the following year. He is given a certificate setting forth the fact, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

# LECTURES AND OTHER GENERAL EXERCISES

A part of the instruction afforded by the University to its students is given through the medium of lectures by distinguished men and women from outside the University faculty and by means of exhibitions, recitals, and other exercises distinct from the regular courses of instruction. A partial list of these exercises for the calendar year 1915 follows. Lectures by members of the University faculty are excluded from this list.

## GENERAL UNIVERSITY EXERCISES

### *Convocations*

- Feb. 22. UNIVERSITY CONVOCATION: Address by Professor E. B. GREENE and Professor J. W. GARNER.  
Feb. 24. UNIVERSITY CONVOCATION: Address by Dr. GRAHAM TAYLOR.  
April 15. UNIVERSITY CONVOCATION: Fiftieth anniversary of the death of Abraham Lincoln. Address by Professor D. K. DODGE.  
Sept. 22. ANNUAL CONVOCATION FOR FRESHMEN.  
Dec. 3. UNIVERSITY CONVOCATION: Addresses by Dean K. C. BABCOCK and Professor C. W. ALVORD.

### *General University Lectures*

- Feb. 6. Hon. AUGUST SCHVAN, Chamberlain to the King of Sweden: "The Lessons of the European War for All Nations."  
Feb. 15-19. Professor LUTHER ANDERSON, Yale University: "American Trade Interests in the Far East," "The Introduction of Western Methods and Ideals in the Far East," "America's Unsolved Problems in the Philippines," "President Yuan Shih Kai and the Political Reconstruction of China" (Illustrated), "Chinese Architecture" (Illustrated).  
May 4. DIRECTOR GEORGE OTIS SMITH: "Practical Idealism" (under the Auspices of Phi Beta Kappa and Sigma Xi).  
May 7. Dr. JENKIN LLOYD JONES: "Above All Nations is Humanity."  
May 17. Mr. J. E. MACDOUGAL: "From Ocean to Ocean across the Canadian Rockies" (Illustrated by motion pictures).  
June 13. Rev. JOSEPH W. COCHRAN: Baccalaureate Address.  
Nov. 12. Mr. GILBERT McCURG: "Panoramic Colorado" (Illustrated).  
Dec. 4-6. Mr. W. A. HUNSBERGER: "Racing with Death in Antarctic Blizzards," "The Passing of War," "Montessori and her System."

### *The Star Lecture Course*

- Jan. 22. Madame ALMA GLUCK.  
Oct. 16. Madame OLIVE FREMSTAD.  
Nov. 17. BEN GREET PLAYERS.

*University Orchestral Concerts*

- Jan. 19. THE NEW YORK SYMPHONY ORCHESTRA.  
 March 23. THE CHICAGO SYMPHONY ORCHESTRA.  
 May 10. THE MINNEAPOLIS SYMPHONY ORCHESTRA.  
 Nov. 22. THE ST. LOUIS SYMPHONY ORCHESTRA.

*Exhibitions*

- Jan. 10-26. ART EXHIBIT. Original paintings by American artists, exhibited by the department of art and design.  
 Jan. 18-22. ARCHITECTURAL EXHIBITION. Drawings exhibited at Washington, D. C., in connection with the annual convention of the American Institute of Architects.  
 March 2-3. EXHIBITION OF ILLINOIS STATE FLORISTS' ASSOCIATION.  
 April 18. EXHIBITION OF FLORAL ARRANGEMENTS. Held by the class in floral decoration.  
 April 8-10. FIFTH ELECTRICAL SHOW. An exhibit of electrical apparatus and appliances under the management of the Electrical Engineering Society.  
 May 11-13. ART EXHIBIT: Student work in landscape gardening.  
 May 14-15. PUBLIC SCHOOL ART EXHIBIT.  
 May 12-15. ARCHITECTURAL EXHIBITION: Winning drawings submitted for the Scarab Medal in architecture.  
 May 24-28. ARCHITECTURAL EXHIBITION: Winning drawings submitted for the Plym Fellowship in architecture.  
 May 26-28. ARCHITECTURAL EXHIBITION: Photographs and water color sketches made at the Panama Pacific Exposition.  
 Sept. 27-30. ARCHITECTURAL EXHIBITION: Photographs and water color sketches made at the Panama Pacific Exposition.  
 Nov. 19-21. ARCHITECTURAL EXHIBITION: Work done by freshmen in the department of architecture.  
 Nov. 7. CHRYSANTHEMUM SHOW.  
 Dec. 7-21. ART EXHIBIT: A collection of paintings exhibited by the Chicago Society of Artists.  
 Dec. 15-17. FRUIT EXHIBIT: Held in connection with the sixtieth annual convention of the Illinois Horticultural Society.

*Entertainments*

- March 2. CHORAL SOCIETY CONCERT: Hiawatha's Wedding Feast.  
 March 6. UNIVERSITY BAND CONCERT.  
 April 12. CHICAGO LITTLE THEATER COMPANY: "The Trojan Women," by Euripides.  
 April 23-24. ILLINOIS UNION OPERA: "A Maid and a Myth."  
 April 29. CONCERT, THE UNIVERSITY CHORISTERS.  
 May 8. PHILOMATHEAN AND ALETHENAI SOCIETIES: "Ralph Roister Doister."  
 May 13. MAY DAY FESTIVAL AND GIRLS' STUNT SHOW.  
 May 14. INTERSCHOLASTIC ORATORICAL CONTEST. GLEE AND MANDOLIN CLUB CONCERT.  
 May 15. INTERSCHOLASTIC CIRCUS.  
 May 24. Mr. C. D. COBURN: "The Modern Drama."  
 June 14. MASK AND BAUBLE: "Milestones."  
 Oct. 9. DRAMATIC READING: Miss MANNHEIMER (under the auspices of the Drama League).

- Oct. 29-30. MASK AND BAUBLE: "Green Stockings."
- Nov. 8. DRAMATIC READING: "Change," by Mme. HARRIET LABADIE (under the auspices of the Drama League).
- Nov. 10. CONCERT, UNITED STATES MARINE BAND.
- Nov. 15. THE KNEISEL QUARTET (under the auspices of the School of Music).
- Dec. 3. ILLINOIS-IOWA DEBATE.
- Dec. 10. DER DEUTSCHE VEREIN: "Alt Heidelberg."
- Dec. 14. ANNUAL CONCERT, CHORAL AND ORCHESTRAL SOCIETY: "The Creation."

*Lecture Under the Auspices of the University Christian Associations*

- Jan. 17. Mr. DAVID CALDWELL, Louisville, Kentucky: "Can We Still be Christians?"

*The Annual Bondurant Bible Lectures*

- Mar. 14-19. Dr. W. M. FORREST, University of Virginia: "What is Doubt?", "What is Faith?", "Is the Bible Inspired?", "Is God Good?", "Did Jesus of Nazareth Live?", "Is Christ Divine?".

*Woman's League Vocational Conference*

- Feb. 23. Mrs. CAROLINE BARTLETT CRANE: "Municipal Work for Women."
- Feb. 22. Professor ABBY S. MARLATT, University of Wisconsin: "Opportunities for Women Trained in Household Science".

*The School of Religion*

- Mar. 22. Rt. Rev. PETER J. O'CALLAGHAN: "Relation and Revelation of God to Man".
- Mar. 28. Dr. GERALD B. SMITH, University of Chicago: "What is Religion?"
- April 5. Dean L. B. FISHER, Ryder Divinity School: "Conceptions of the Reality of Heaven and Hell."
- April 12. Miss GEORGIA CHAMBERLAIN, University of Chicago: "Teaching the Gospels and Epistles to Young Pupils." Dr. JENKIN LLOYD JONES: "The Universality of Religious Experience."
- April 19. Rev. C. W. GILKEY, Hyde Park: "Firsthand Religion."
- April 26. Rabbi LEON HARRISON, St. Louis, Missouri.

**THE COLLEGE OF LIBERAL ARTS AND SCIENCES***College Assemblies*

- Jan. 14. Dr. OZORA S. DAVIS, President, Chicago Theological Seminary: "The Christian Ministry in the Twentieth Century."
- Feb. 11. Miss JANE ADDAMS, Head of Hull House Settlement: "Civic and Social Service in its Professional Aspects."
- March 11. Dr. CHARLES P. EMERSON, Dean, Indiana University School of Medicine: "The Physician of Yesterday and Today."
- April 22. Dr. CHARLES H. JUDD, Director of the School of Education, University of Chicago: "The Modern Educator".
- Dec. 9. Mr. LORADO TAFT, University of Chicago: "Art as a Career of Public Service".

*Botany*

- Jan. 26-27. Professor JAGADIS CHUNDER BOSE, Presidency College, Calcutta, India: "Plant Autographs and their Revelations", "The Curve of Life and Death".

*Business Administration*

Feb. 1-6. SHORT COURSE IN BUSINESS ADMINISTRATION.

*Chemistry*

Feb. 18. Dr. ARTHUR L. DAY, Director of the Geophysical Laboratory of the Carnegie Institution, Washington, D. C.: "The Work of the Geophysical Laboratory".

April 23-24. F. W. KRESSMAN, United States Forest Products Laboratory, Madison, Wis.: "The Forest Products Laboratory and its Chemical Problems" (under the auspices of the American Chemical Society), "The Manufacture of Linoleum".

May 21. Professor J. W. NEF, University of Chicago: "The Chemistry of Enzyme Action".

Dec. 14. Dr. P. H. BATES, U. S. Bureau of Standards, Pittsburg, Pa.: "The Constitution of Portland Cement" (under the auspices of the American Chemical Society).

Jan. 15. Dr. DAVID KLEIN, State Analyst of Illinois, Chicago, Ill.: "Science and Food Legislation" (under the auspices of Phi Lambda Upsilon).

*Education*

March 24. Dr. T. W. GALLOWAY: "Constructive Use of the Facts of Sex in the Education of Youth" (under the auspices of Kappa Delta Pi).

Oct. 27. Mr. T. J. McCORMACK, Principal, LaSalle-Peru Township High School: "Education for the Appreciation of Art", "The Public School and Community Welfare Work".

*English*

March 15. Mr. F. W. C. HERSEY, Harvard University: "The Art of the Theater".

March 30. Dr. FRANK WADLEIGH CHANDLER, Dean of the College of Liberal Arts, University of Cincinnati: "Sensibility and Sentimentalism".

Nov. 3-5. Mr. NICHOLAS VACHEL LINDSAY, Springfield, Illinois: "The Gospel of Beauty", "Poetry and Democracy".

*German*

Jan. 14. Mr. MARTIN DRESCHER, German-American Poet, Chicago: "Ibsen's Volksfeind" (under the auspices of the Deutscher Verein).

*Zoology*

Feb. 23. Dr. CHARLES W. STILES, Professor of Zoology, U. S. Public Health and Marine Hospital Service: "Hookworm".

*THE COLLEGE OF ENGINEERING**College Assemblies*

Dec. 7. Mr. WILLARD BEAHAN, First Assistant Engineer, Lake Shore & Michigan Southern Railway, Cleveland, Ohio: "The Engineering of Men".

Jan. 8. Mr. WHARTON CLAY, Representative, United States Gypsum Company, Chicago, Illinois: "The Gypsum Industry".

Jan. 12. Mr. EDWARD ORTON, Dean of the College of Engineering, Ohio State University, Columbus, Ohio: "The Engineer as a Social Force".

- Jan. 18. President HENRY S. DRINKER, Lehigh University, South Bethlehem, Pennsylvania: "Proper Conservation and Development of Our Natural Resources".
- Jan. 20. Mr. C. J. HICKS, Welfare Department, International Harvester Company, Chicago, Illinois: "Industrial Betterment and Good Business".
- Jan. 21. Mr. A. D. BAILEY, Commonwealth Edison Company, Chicago, Illinois: "The Increasing Importance of Coal in the Manufacture of Electrical Energy".
- Jan. 24. Mr. W. K. HATT, Professor of Civil Engineering, Purdue University, Lafayette, Indiana: "Flood Protection in Indiana".
- Feb. 27. Mr. CARL WENDELL, Illinois Steel Company, Joliet, Illinois: "Coal Washing".
- March 1. Mr. SETH TEMPLE, Davenport, Iowa: "The Architect as a Business Man".
- March 3. Mr. E. C. LOF, General Electric Company, Schenectady, New York: "The Panama Canal and its Electrical Equipment" (illustrated with motion pictures).
- March 17. Mr. DANIEL W. MEAD, Professor of Hydraulic and Sanitary Engineering, University of Wisconsin, Madison, Wisconsin: "Past and Present Engineering in China".
- March 22. Mr. FRANKLIN H. WENTWORTH, Secretary, National Fire Protection Association, Boston, Massachusetts: "Economic Significance of the Fire Waste".
- March 24. Mr. F. H. NEWELL, Consulting Engineer, U. S. Reclamation Service, Washington, D. C.: "Engineering and Economic Results of Reclamation Work".
- March 26. Mr. WALTER MEASDAY, United Shoe Machinery, Boston, Massachusetts: "Evolution of Footwear" (illustrated with motion pictures).
- April 8-10. ELECTRICAL SHOW.
- April 15. Mr. H. A. WHEELER, Vice-President, Union Trust Company: "Relation of the Engineer to Business".
- April 21-23. Mr. F. H. NEWELL, Consulting Engineer, U. S. Reclamation Service, Washington, D. C.: "Reconnaissance and Selection of Engineering Projects", "Organization of the Work", "Methods and Results".
- May 17. Mr. J. E. MACDOUGALL, Canadian Pacific Railway Company: "Ocean to Ocean Across the Canadian Rockies" (illustrated with motion pictures).
- May 20. Mr. R. C. LANPHIER, Sangamon Electric Company, Springfield, Illinois: "Electrical Recording Meters".
- May 29. Mr. E. P. MERRILL, Sales Department, Cadillac Motor Car Company, Detroit, Michigan: "Automobile Design and Construction".
- Nov. 16. Professor ALFRED STILL, Purdue University: "The Present Day Industrial Criterions in England".
- Dec. 15. Mr. H. A. WHEELER, Vice-President, Union Trust Company: "The Engineer's Profession Viewed from the Banker's Standpoint".

*Addresses Before the Freshmen Class*

- Nov. 18. Major J. B. CAUGHEY, Elgin National Watch Company, Chicago, Illinois: "Processes of Manufacture of the Elgin Watch" (illustrated with motion pictures).

Nov. 25. Mr. R. Y. WILLIAMS, Director of the Miners' and Mechanics' Institutes: "Alaskan Coal Inspection Trip".

Feb. 17. Mr. R. Y. WILLIAMS, Director of the Miners' and Mechanics' Institutes: "Safe and Unsafe Methods of Bituminous Coal Mining".

March 3. Mr. E. A. LOF, General Electric Company, Schenectady, New York: "Construction and Operation of the Panama Canal".

#### *Architecture*

Feb. 25. Mr. SETH J. TEMPLE, Architect, Davenport, Iowa: "The Architect and the Business Man" (under the auspices of the Architectural Club).

Oct. 14-15. BUILDING ASSOCIATION LEAGUE OF ILLINOIS.

#### *Ceramic Engineering*

Jan. 11-23. INDUSTRIAL COURSE IN CERAMICS.

#### *Civil Engineering*

Nov. 20. Mr. E. K. BURTON, Resident Engineer of the Trussed Concrete Steel Company, San Juan, Porto Rico: "Engineering Construction in Porto Rico" (under the auspices of the Civil Engineering Society).

#### *Electrical Engineering*

Jan. 21. Mr. A. D. BAILEY, Commonwealth Edison Company, Chicago: "The Increasing Importance of Coal in the Manufacture of Electrical Energy".

March 3. Mr. E. C. LOF, General Electric Company, Schenectady, New York: "The Panama Canal and its Electrical Equipment".

#### *Highway Engineering*

Jan. 11-22. SHORT COURSE IN HIGHWAY ENGINEERING.

#### *Mechanical Engineering*

March 25. Mr. FRANK RASMUSSEN, Link-Belt Company, Chicago: "Modern Conveyor Machinery".

#### *Mining Engineering*

Feb. 26. Mr. CARL WENDELL, Special Engineer, Illinois Steel Company, Joliet, Illinois: "Coal Washing".

### *THE COLLEGE OF AGRICULTURE*

#### *Agricultural Extension*

April 16. Mr. W. H. LEAVITT: "Student Life in the Latin Quarter".

April 23. Mr. J. V. STEVENSON: "The Farm of the Future".

Oct. 30. Mr. B. F. HARRIS, Champaign, Illinois: "Business and Money for Students".

Sept. 29. Mr. CARL VROOMAN, Assistant Secretary of Agriculture: "Work of the Department of Agriculture".

Nov. 17. Mr. J. C. THORPE, President, Illinois Motor Company, Urbana, Illinois: "Safety First in Handling Automobiles".

*Agronomy*

- Jan. 19-23. Mr. J. C. THORPE, B.S., President, Illinois Motor Company, Urbana, Illinois: "A Factor in American Industry", "The Construction of the Modern Automobile", "Care and Operation of the Automobile", "Electric Equipment in the Modern Automobile".
- Aug. 3. Mr. FRANK J. MANN, Gilman, Illinois: "Plowing and Tillage from the Farmer's Standpoint".
- Aug. 4. Mr. RAYMOND OLNEY, Tractor Expert for the Thresherman's Review: "Tractor Operation".
- Aug. 5. Mr. F. M. WHITE, University of Wisconsin: "Traction Economics".
- Nov. 12. Mr. LEE CLINE, District Sales Manager, Lawson Engine Company, New Holstein, Wisconsin: "Farm Lighting Plants".
- Dec. 7. Dean H. G. KNIGHT, A.M., College of Agriculture, Laramie, Wyoming: "Influence of Altitude on Crop Production".

*Animal Husbandry*

- April 20-21 and May 5. Mr. LOUIS E. DALLENBACH, Champaign, Illinois: "Poultry Management".
- April 28. Mr. DAVID M. FYFFE, Superintendent of Live Stock at Ohio State University: "Draft Horses".
- May 5. Mr. WAYNE DINSMORE, Secretary of the Percheron Society of America: "The Future of Pure-bred Draft Horse Breeding".
- May 14. Mr. A. J. LOVEJOY, Roscoe, Illinois: "Starting in Pure-bred Swine".

*Household Science*

- Jan. 18-30. SHORT COURSE IN HOUSEHOLD SCIENCE.

*Addresses Before the School for Housekeepers*

- Jan. 20-21. Mrs. JOHN C. HESSLER, Decatur: "Making a Home Beautiful", "The Dress Question Illustrated".
- Jan. 22. Mrs. H. W. DUNLAP, Savoy: "Difficulties to Overcome in Building a Country Home".
- Jan. 25-26. Mr. W. H. HARRISON, State Pure Food Commission, Chicago: "What a Man Learned", "The Life of the Fly".
- Jan. 27-29. Mrs. C. F. BAKER, Chicago: "Draping and Design", "Selection of Furniture for the Complete Home".
- Jan. 27-29. Mrs. F. L. STEVENS, Urbana: "Breads", "Tasteful Interiors".
- Jan. 27. Mrs. H. A. McKEENE, Springfield: "Report of the Household Science Department of the Farmers' Institute".
- Jan. 28. Mrs. H. A. McKEENE, Springfield; Mrs. GEORGE SPATES, Willey; Mrs. V. VANNIMAN, Virden; Mrs. J. P. STOUT, Chatham: Symposium—"Improving the Farm Home".
- Jan. 29. Mr. D. M. COMPTON, Chicago: "Heating and Ventilating the Farm Home".
- Jan. 29. Mr. R. D. HELLER, Chicago: "Processes in Textile Manufacture".
- March 23-7. Miss ANNA BARROWS, Boston: Series of three lectures and four demonstrations on foods.
- April 27-30. Mr. Fred E. RICE, Professional Baker, Chicago: Series of four baking demonstrations.
- Sept. 27-30. Mrs. HARRIET L. B. DARLING, New York: Series of four demonstrations in foods.

Nov. 5. Miss HELEN LOUISE JOHNSON, Chairman Home Economics Section of the National Federation of Woman's Clubs: "Home Economics Students and the Woman's Club".

*Landscape Gardening*

Nov. 18. Mr. O. G. S. SCHAFFER: "Practical Landscape Gardening".

Dec. 16-17. Professor F. A. WAUGH, Head of the Department of Landscape Gardening, Massachusetts Agricultural College: "Scope and Purposes of Landscape Art", "The Native Landscape", "Technical Design in Naturalistic Landscape", "The Musical versus the Architectural Spirit in Landscape Art", "Scope, Motives, and Criteria in Rural Improvement", "Road Problems", "Public Reservations", "Organization, Methods, and Finance", "Art, Order, and the Landscape in Daily Life", "Civic Art" (illustrated).

*THE LIBRARY SCHOOL*

March 11-12. Miss IONE ARMSTRONG: "What Training for Librarianship Means", "A Day's Work in the Council Bluffs Public Library".

April 22-23. Miss MARGARET MANN, Carnegie Library, Pittsburgh: "Library Printing", "The Catalog Department of a Large Public Library".

May 12. Mr. ADAM STROHN, Detroit Public Library: "Good Library Service".

Nov. 3-5. MEETING OF THE ILLINOIS LIBRARY ASSOCIATION.

Nov. 10-12. EXHIBIT: The Voynich Collection of MSS. and Rare Books.

Dec. 2-3. Mr. GEO. B. UTLEY, Secretary, American Library Association: "The Work of the American Library Association", "Recent Tendencies in Library Work".

Dec. 10. Miss ALICE L. TYLER, Director, Western Reserve Library School: "The Library and Social Welfare".

*THE SCHOOL OF MUSIC*

Feb. 17. THE KNEISEL QUARTET.

March 18. Mrs. E. A. McDOWELL: Lecture-recital.

*THE SUMMER SESSION, 1915*

*Lectures and Demonstrations*

June 24. SUMMER SCHOOL CONVOCATION.

July 1. Dr. L. T. JONES: "Liquid Air".

July 1-2. Mr. HENRY OLDYS: "Bird Notes", "The Music of Man and Bird", "The Songs of Birds".

July 6-9. Mr. W. T. BAWDEN, Specialist in Industrial Education, Bureau of Education, Washington, D. C.: "The Relation of the Hand to the Expression of Ideas", "Vocational Guidance and the Public Schools", "The Industrial Education Survey of Richmond, Virginia", "Recent Progress in Vocational Education".

July 6 to Aug. 5, Tues., Wed., and Thurs. evenings during the Summer Session. Dr. GEORGE A. L. SARTON, University of Ghent: "The History of Science".

July 15. Mr. O. A. RANDOLPH: "X-Rays".

July 23-24. Professor VAUGHAN McCaughey: Hawaiian Trails and Mountains", "The Lore of the Ancient Hawaiians", "The Schools of the Tropics".

*Entertainments*

July 17. BEN GREET PLAYERS: "Twelfth Night", "The Tempest".

Aug. 6. SUMMER SESSION PLAY: "Much Ado About Nothing".

# ASSOCIATIONS, SOCIETIES, AND CLUBS

## GENERAL ORGANIZATIONS

### The Alumni Association

The Alumni Association is the general organization of the alumni of the University. The Association maintains an office at the University and publishes a periodical, the *Alumni Quarterly and Fortnightly Notes*. The alumni of the College of Medicine, the College of Dentistry, the School of Pharmacy, and the Library School have formed departmental organizations. Forty-one local alumni associations have been organized: thirteen in Illinois, two each in California, Missouri, New York, Ohio, and Wisconsin, one each in Colorado, the District of Columbia, Idaho, Indiana, Iowa, Massachusetts, Michigan, Minnesota, North Dakota, Oregon, Pennsylvania, Tennessee, Texas, Utah, Washington, Brazil, India, and Japan. Regular University of Illinois alumni luncheons are held in fifteen cities. (See the Directory of Alumni Associations at the end of this volume.)

### University of Illinois Union

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members.

### The Student Council

The Student Council, consisting of eight seniors and seven juniors, elected annually, has charge of certain undergraduate student activities.

### The Woman's League

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium for the maintenance of high social standards. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magazines for the Woman's Building.

### Hospital Organization

1. The Students' Mutual Benefit Hospital Fund is a fund made up of contributions from students (persons connected with the University in any other way than as students are not eligible for membership).
2. The amount of contribution from each student is \$1.00 a semester.
3. The payment of \$1.00 is due at the opening of each semester, and members are not received later than three weeks after the first day of registration in any semester. Payment confers benefits to the end of the semester in which payment is made.
4. By consent of each member, which consent is acknowledged by the payment of a semester contribution, the fund is paid to the Dean of Men as

trustee. This trustee is liable to the members for the proper disbursement of the fund for the purpose for which it is collected, and only to the amount collected.

5. The purpose of the fund is to provide ward hospital care at the rate of \$2.00 a day for members who become ill and need such care for a period of time not to exceed four weeks during any semester. No payment is made for the expense of a special nurse, or for a physician's bill. The obligation of the trustee is to the contributors to the fund, and not to the hospital. Payment is made only if the beneficiary is in good health when he makes his contribution, and persons paying within the period of the incubation of an infectious disease are not entitled to the benefits of the fund.

6. The trustee has custody of the fund and makes all payments.

7. The trustee reports annually on the operation of the fund, and renders an accounting to the Council of Administration at the first regular meeting of that body in September of each year. The Council of Administration receives this report and asks the Comptroller of the University to audit the accounts for presentation at its first meeting in September, spreads the report on its records so that the proceedings of the trustee may be permanently preserved, and publishes the essential facts of the annual report in the *Daily Illini*.

#### Literary Societies

The ADELPHIC, IONIAN, and PHILOMATHLEAN societies for men, and the ALETHENAI, ATHENIAN, ILLIOLA, and GREGORIAN societies for women, meet weekly, on Fridays, and the JAMESONIAN Society (for women) on Tuesdays, throughout term time.

#### The Christian Associations

The present membership of the Young Men's Christian Association is 1,114. The Association building furnishes free, for the use of all students, lounging room and library, game rooms, parlors, organization rooms for committee meetings, correspondence tables, and check room. The building also contains dormitories to accommodate ninety men. A cafeteria, whose manager is on the pay roll of the Association, serves 450 to 500 persons daily. Religious meetings for men are held occasionally on Sunday afternoon. Thursday evening meetings are addressed by prominent faculty members on ethical topics. Student-led classes in Bible Study are promoted, the teachers receiving training in normal groups. In 1914-15 there were 1,030 men enrolled in voluntary Bible Study. An employment bureau managed by a special secretary, who maintains office hours every afternoon in the Association building, endeavors to help students to find work.

The Y. W. C. A. is housed in the Hannah McKinley building. Dormitory space is provided for fifty young women. There are parlors on the first floor for use of the women rooming in the house, a large assembly room, pianos, organization rooms, and correspondence tables. A bowling alley and modern dining room are in the basement. There are 446 members of the Y. W. C. A. In 1914-15 there were 446 young women enrolled in voluntary Bible Study. An employment bureau is maintained at the Y. W. C. A. to help University women to find employment.

At the opening of the college year the Associations endeavor to help new students to find desirable rooming and boarding places. A copy of the Students' Handbook, giving information about Urbana and Champaign, the University,

and the various college organizations and activities will be sent free to prospective students. For this handbook or for further information address the general secretary of either Association.

#### The Cosmopolitan Club

The Cosmopolitan Club is an organization devoted to the promotion of social and intellectual intercourse among persons of different nationalities at the University. Public meetings are held in University buildings, to afford the University community information about the customs peculiar to the various countries of the world. The clubhouse on Daniel street affords a home to many foreign students and to a limited number of native students.

#### Ma-Wan-Da

*Ma-Wan-Da* is a senior society formed by the consolidation of two former senior societies, Shield and Trident, and Phenix.

#### HONORARY SOCIETIES

The honorary societies or fraternities named below are private intercollegiate organizations of students and graduates, having for their primary purpose the recognition and encouragement of excellence in scholarship in various departments of study. Election is in all cases made by the societies themselves in accordance with their own rules. The University assumes no responsibility for their elections.

#### Phi Beta Kappa

Each year a certain number of the ranking students of the senior class in the College of Liberal Arts and Sciences are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

#### *The Phi Beta Kappa Prize*

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of \$25.00 to that member of Gamma Chapter who at his graduation from the College of Liberal Arts and Sciences gives evidence of greatest promise as a scholar in the domain of liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa Society, University of Illinois. The committee will not be limited in its award to those who have submitted papers specifically for this purpose or have otherwise given formal notice of candidacy. Special consideration will be given to theses deposited in the College Office by candidates for honors in the various departments.

#### Sigma Xi

Members of the senior class who give "promise of marked ability" in scientific investigations are eligible to membership in the Sigma Xi Society, which was founded to encourage research in pure and applied science.

#### Other Honorary Societies

Alpha Chi Sigma (Chemical); Alpha Delta Sigma (Advertising); Alpha Gamma Rho (Agricultural); Alpha Rho Chi (Architectural); Alpha Zeta

(Agricultural); Beta Gamma Sigma (Commercial); Delta Sigma Rho (Oratorical); Eta Kappa Nu (Electrical Engineering); Gamma Alpha (Scientific); Kappa Delta Pi (Educational); Order of the Coif (Law); Phi Alpha Delta (Law); Phi Delta Phi (Law); Phi Lambda Upsilon (Chemical); Pi Tau Sigma (Mechanical Engineering); Psi Mu (Architectural); Scabbard and Blade (Military); Scarab (Architectural); Sigma Delta Chi (Journalistic); Sigma Mu Rho (Medical); Sigma Tau (Engineering); Tau Beta Pi (Engineering); Triangle (Civil Engineering); U. L. A. S. (Landscape Architecture).

### CLUBS AUXILIARY TO COURSES OF STUDY

In addition to the associations and societies of a general character described above, there are in each college a number of societies and clubs devoted to outside work of a literary, scientific, or technical nature auxiliary to the work of various departments of that college. Among these are the following:

In the COLLEGE OF LIBERAL ARTS AND SCIENCES: The Botanical Club, the Ceramic Club, *le Cercle Francais*, *el Circulo Espanol*, the Chemical Club, the University of Illinois Section of the American Chemical Society, the Classical Club, *der Deutsche Verein*, the English Journal Club, the Geological Journal Club, Graphomen (journalistic), the History Club, the Mathematical Club, Medui (pre-medical), the Oratorical Association, the Pen and Brush Club, the Philological Club, the Political Science Club, the Romance Journal Club, the Scandinavian Club, the Zoological Club.

In the COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION: The Commercial Club.

In the COLLEGE OF ENGINEERING: The Architectural Club, the Ceramic Club, the Civil Engineering Society, the Electrical Engineering Society, the Urbana Section of the American Institute of Electrical Engineers, the Student Branch of the American Society of Mechanical Engineers, the Student Branch of the American Institute of Mining Engineers, the Physics Colloquium, the Railway Club.

In the COLLEGE OF AGRICULTURE: The Agricultural Club, the Horticultural Club, the Household Science Club, the Landscape Gardeners' Club.

In the SCHOOL OF MUSIC: The University Choral and Orchestral Society, the University Glee and Mandolin Club, the University Military Band.

In the LIBRARY SCHOOL: The Library Club.

In the LAW SCHOOL: Inns of Court.

### FRATERNITIES, SOCIETIES, AND CLUBS

*National Fraternities*.—Acacia (Masonic); Alpha Delta Phi; Alpha Kappa Psi; Alpha Sigma Phi; Alpha Tau Omega; Beta Theta Pi; Chi Phi; Chi Psi; Delta Kappa Epsilon; Delta Tau Delta; Delta Upsilon; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Eta; Phi Gamma Delta; Phi Kappa; Phi Kappa Psi; Phi Kappa Sigma; Phi Sigma Kappa; Psi Upsilon; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Pi; Tau Kappa Epsilon; Theta Delta Chi; Zeta Beta Tau; Zeta Psi.

*Sororities*.—Achoth (Eastern Star); Alpha Chi Omega; Alpha Delta Pi; Alpha Omicron Pi; Alpha Xi Delta; Chi Omega; Delta Gamma; Gamma Phi Beta; Kappa Alpha Theta; Kappa Kappa Gamma; Pi Beta Phi; Sigma Kappa.

*Local Clubs*.—Chi Beta; Chi Delta; Ilus; Iris; Pi Omicron; Psi Delta.

*Interfraternity Organizations*.—Men's Pan Hellenic Council; Girls' Pan Hellenic Association; Helmet; Yo Ma; Phi Delta Psi; Ku Klux Klan.

**OTHER ORGANIZATIONS**

Other students' societies include the following: Arkansas Club; Bushnell Guild; Chinese Students' Club; Beta Upsilon (Congregational guild); Culver Club; Dixie Club; Easteners' Club; Egyptian Club; H. H. Club; Hindusthani Association; Illinois Drama Federation; Inter-Collegiate Prohibition Association; Ivrim; Japanese Students' Club; Kansas Club; Komenian Society; Lambda Epsilon Phi (Republican club); Lambkins' Club (interfraternity dramatic club); Lincoln League; Mask and Bauble (dramatic); Motorcycle Club; Scribblers' Club; Sewanee Circle; Shomeez (interfraternity Missouri club); Sigma Delta Theta (M. E.); Student Council.

# **UNDERGRADUATE SCHOLARSHIPS**

(For circulars giving more detailed information concerning scholarships, apply to the Registrar of the University.)

## **COUNTY SCHOLARSHIPS**

A law passed by the General Assembly of the State of Illinois at the session of 1905 and embodied in the General School Law of 1909 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. No student who has attended the University of Illinois is eligible for a scholarship. The holder of a scholarship is relieved of payment of the matriculation fee (\$10.00, payable once, on entrance) and the incidental fee (\$24.00 a year) for four years in any department of the University other than the professional schools. The term "professional schools," as here used, includes the College of Law, the Library School, the College of Medicine, the College of Dentistry, and the School of Pharmacy.

A competitive examination, under the direction of the President of the University, and upon such branches of study as the President may select, is held upon the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for the examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class, and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by assigning to that county from some other county the student found to possess the next highest qualifications.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship). Such extension will not be granted unless the student has been in attendance at the University for at least one full semester, nor unless the student's average grade during the period of his attendance has been at least 80 per cent, exclusive of grades in military science and physical training.

## **GENERAL ASSEMBLY SCHOLARSHIPS**

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate annually one eligible person from his district for a scholarship in the University, granting the same privileges as the county scholarships.

A member of the General Assembly who wishes to nominate a candidate for a scholarship should file the name and address of his nominee as early in the spring as practicable and not later than June 1, with the President of the University and also with the County Superintendent of the county in which the nominee resides.

The nominee is then required, under the statute, (1) to pass the scholarship examination—the same that is given to competitors for the county scholarships on the first Saturday in June, under the County Superintendent; (2) to meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class; and (3) to register in the University the following September.

If a nominee fails to make a passing grade (70) in the scholarship examination he may not receive the scholarship. In this case notice will be sent to the member of the General Assembly who made the nomination, who is then entitled to nominate a second candidate. This second candidate is subject to all the requirements stated above; the scholarship examination will be given him at the University on the Wednesday preceding the fall registration days (in 1916, September 13).

A General Assembly scholarship may be extended under the same conditions as a county scholarship.

#### SCHOLARSHIPS IN CERAMIC ENGINEERING

The University offers annually to each county in the State one scholarship, awarded on the nomination of the Illinois Clay Workers' Association, to applicants who intend to follow the curriculum in Ceramic Engineering. These scholarships are good for four years and relieve the student from the payment of the matriculation fee (\$10.00, payable once, on entrance) and the incidental fee (\$24.00 a year).

The candidate must be at least sixteen years of age, must be a resident of the county for which he is nominated, and must meet *in full, before entering*, by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class.

#### SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of agriculture in the College of Agriculture and one for prospective students of household science in the College of Liberal Arts and Sciences or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University upon the recommendation of the Executive Committee of the Illinois Farmers' Institute; and to scholarships in household science upon the recommendation of the County Domestic Science Associations, or, for counties and districts in which there are no domestic science associations, on the recommendation of the Illinois Farmers' Institute. Persons who have already attended the University are not eligible.

Candidates who are able to meet in full the requirements for admission to the freshman class are eligible to appointment at 16 years of age. Candidates who cannot meet these entrance requirements are eligible to appointment as special students (in the College of Agriculture) at 21 years of age.

Acceptable candidates, residents of counties or districts for which appointments have been made, not exceeding five in number from any one county or district, may be assigned to counties or districts for which no recommendations are made. The first nominee from each county or district, if duly qualified, is awarded the scholarship at the time of registration. Other nominees must pay the regular fees on registration. Assignments to counties and districts for which there are no nominees registered are made on October 15, at which time the nominees so assigned to counties or districts other than their own receive rebates of the full amount of the matriculation and incidental fees paid.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee (\$10.00, payable once, on matriculation), the incidental fee (\$24.00 a year), and (in the case of special students) the tuition fee (\$15.00 a year). If, before a scholarship expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled the term of the scholarship may be extended to four years from the date of the student's matriculation.

#### MILITARY SCHOLARSHIPS

Students who have had three semesters of class instruction in military science and four semesters of drill practise are eligible for appointment as commissioned officers of the University Corps of Cadets. To those attaining this rank, special military scholarships, good for one year, and equal in value to the university incidental fees for the year, are open. The amount of these scholarships is paid the holders at the close of the academic year. Appointments in the Corps of Cadets are made on the recommendation of the Commandant of Cadets, confirmed by the Council of Administration.

#### OTHER SCHOLARSHIPS

For scholarships in the College of Law, see page 218.

For scholarships in the Summer Session, see page 212.

For fellowships and graduate scholarships, see under Graduate School page 194.

## BENEFICIARY AID

### EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor of the German Language and Literature, *Emeritus*, gave the University the sum of \$12,000, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars (\$50); the maximum loan is one hundred and fifty dollars (\$150) to a junior, and two hundred dollars (\$200) to a senior or graduate student. Notes of hand are taken for the amount of the loans, with 5 per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their university work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to the Chairman of the Loan Fund Committee.

### CLASS OF 1895 LOAN FUND

A fund of \$100.00 was established by the class of 1905, to be lent to needy and deserving students. According to the conditions of the gift, the sum of fifty dollars is to be lent annually, and the benefit of the fund is open only to students who, at the time of application, are members of the freshman class. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The fund is in charge of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to the Chairman of the Committee.

### GRADUATE CLUB LOAN FUND

A fund of \$75 was established by the members of the Graduate Club in 1907-1908, for the benefit of graduate students. Its administration is in the hands of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to the Chairman of the Committee.

**WOMAN'S LEAGUE LOAN FUND**

In December, 1910, the Woman's League of the University gave to the University the sum of \$409.44 to be known as the Woman's League Loan Fund. This fund is available for any woman matriculated in the University and is administered in the same way as the Snyder Loan Fund.

**WILLIAM B. M'KINLEY LOAN FUND**

In September, 1912, the Hon. William B. McKinley of Champaign, Illinois, turned over to the University notes aggregating something more than \$12,000, this amount as it is collected to be used as a loan fund for undergraduate men. In making the donation, Mr. McKinley stipulated that loans should be made to students upon their own personal notes, and that a preference should be shown in making these loans to upperclassmen. The notes draw interest at 5 per cent and become due two years after the student's graduation. Applications for loans should be made in writing and should be addressed to the Chairman of the Loan Fund Committee.

**HENRY STRONG LOAN FUND**

Mr. Gordon Strong, of Chicago, trustee of the Henry Strong Educational Fund, has for 1915-16 offered the University \$500 to be loaned to self-supporting students of high scholastic attainments. The loan bears interest at 4 per cent and is payable within one year after graduation. The fund has been loaned to four students, each of whom received \$125.

**MARGARET LANGE JAMES LOAN FUND**

In 1915 President Edmund J. James established the Margaret Lange James Loan Fund in memory of his wife. The original fund (\$5000) given by President James has been supplemented by gifts from other persons, and the fund now amounts to about \$5650.

Loans from this fund may be made to matriculated students, preferably women, who have been in residence at the University at least one year, who have attained at least junior standing, and who are at the time of application students in residence, who have declared their intention to graduate. In recommending loans, only students of promise and good scholastic standing are considered, and, other things being equal, preference is given to those who are the farthest along in their University work. A loan is not recommended for any student who is believed to be financially or morally delinquent in any respect.

Applicants for loans are required to offer security other than their own signatures, and no member of the faculty or other person directly connected with the University is accepted as security for any student loan.

Loans bear interest until maturity at 5 per cent, payable semi-annually. The maximum time for which notes may be drawn is two years from the thirtieth day of June next following the student's regular time of graduation. Bank discount is charged for the time until the thirtieth day of June next following the date of the note. Interest at 7 per cent is charged on all notes not paid at maturity.

Applications for loans must be made in writing and addressed to the Chairman of the Loan Fund Committee.

## FEES AND EXPENSES

### GENERAL FEES

*All University fees are payable each semester in advance.*

<b>Colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, and Agriculture, and Library School</b>	
<i>Matriculation Fee.</i> Each student not holding a scholarship, upon satisfying the requirements for admission to the University, pays the matriculation fee of .....	\$10.00
<i>Incidental Fee.</i> All students, excepting those holding scholarships, pay each semester, an incidental fee of.....	12.00
<i>Tuition Fee.</i> Students conditioned on entrance requirements, and special students, except special students (in agriculture or household science) holding scholarships, pay each semester, a tuition fee of.....	7.50
<i>Laboratory Fees.</i> Each student working in laboratories, or in the drafting or engineering classes, is required to pay a fee varying from \$0.50 to \$10.00, to cover materials and apparatus used and breakages or damages. (For a list of Laboratory Fees, see page 124.)	
<i>Deposit for Military Uniform.</i> Male students, citizens of the United States, under 25 years of age, entering the University as freshmen or sophomores, make a deposit to cover the cost of the required military uniform* of.....	14.20
<i>Listener's Fee.</i> Persons not connected with the University who attend classes as listeners, pay for each course, each semester.....	7.50
<i>Late Registration Fee.</i> A former student who enters after the Registration Days in either semester must pay a late registration fee of.....	1.00
<i>Change Fee.</i> For every change of study-list made later than the tenth day of instruction of either semester a fee of \$1.00 is charged, except that the total charge for the rearrangement authorized on any one change-slip shall not exceed \$2.00.....	1.00
<i>Special Examination Fee.</i> For any special examination, except examinations for advanced standing taken within sixty days after matriculation, the fee is.....	5.00
<i>Diploma Fee</i> .....	5.00

### School of Music

#### College Courses

<i>Matriculated students, residents of Illinois, pay, each semester, the incidental fee .....</i>	\$12.00
<i>Non-matriculated students, residents of Illinois, registered for the course in <i>Public School Methods</i>, as outlined on page 200, pay, each semester:</i>	
(1) The incidental fee .....	\$12.00
(2) The tuition fee .....	7.50

\*Additional equipment costing \$6.75 must be purchased.

All other students (including matriculated students not residents of Illinois and all conditioned and special students), pay, each semester:

If they take music only, special music fees, as follows:

For two lessons a week.....	\$32.50
For one lesson a week.....	19.50
For harmony, counterpoint, fugue, etc .....	9.00

If they take, in addition to music, subjects in other departments:

(1) The incidental fee.....	\$12.00
(2) Unless matriculated, the tuition fee.....	7.50
(3) Special music fees, as follows:	

For two lessons a week.....	\$25.00
For one lesson a week.....	15.00

(4) For harmony, counterpoint, fugue, etc.....	9.00
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### *Preparatory Courses*

Students taking music only pay, each semester, special music fees as follows:

For two lessons a week.....	\$19.50
For one lesson a week.....	11.00

Students taking, in addition to music, subjects in other departments pay, each semester:

(1) The incidental fee.....	\$12.00
(2) Unless matriculated, the tuition fee.....	7.50
(3) Special music fees, as follows:	

For two lessons a week.....	\$15.00
For one lesson a week.....	8.50

### *Additional*

Use of a piano for practise one hour a day, each semester..... \$ 3.00

Additional hours at the same rate.

Special students, taking music only, may enter classes in physical training on paying, each semester..... 7.50  
Diploma fee ..... 5.00

### *College of Law*

Matriculation fee, payable upon satisfying the entrance requiremens.... \$ 10.00  
Tuition fee, each semester ..... 25.00  
Students conditioned on entrance requirements pay, each semester, an additional fee of..... 7.50  
Students not enrolled in the College of Law, pay, each semester, for each law course ..... 5.00  
Diploma fee ..... 5.00

### *College of Medicine*

#### *Freshman Year*

Matriculation .....	\$ 5.00
Laboratory .....	30.00
General Tuition .....	120.00
<hr/>	
Total .....	\$155.00

*Fees and Expenses**Sophomore Year*

Registration .....	\$ 5.00
Laboratory .....	35.00
General Tuition.....	120.00
<hr/>	
Total .....	160.00

*Junior Year*

Registration .....	\$ 5.00
Laboratory .....	5.00
General Tuition .....	140.00
<hr/>	
Total .....	\$150.00

*Senior Year*

Registration .....	\$ 5.00
General Tuition .....	155.00
Diploma fee .....	5.00
<hr/>	
Total .....	\$165.00

**College of Dentistry**

Matriculation fee, paid but once, first year.....	\$ 5.00
Registration fee, second and third years.....	5.00
Tuition, each year (including laboratory and dissection fees).....	150.00
Diploma fee .....	5.00

**School of Pharmacy**

Matriculation fee, paid but once.....	\$ 5.00
Tuition fee, shorter course, each year.....	75.00
Tuition fee, longer course, each year.....	125.00
Laboratory deposit, shorter course, each year.....	10.00
Laboratory deposit, longer course, each year.....	15.00
Diploma fee .....	5.00

**LABORATORY FEES (FOR MATERIALS) 1915-16**

(The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)

Animal Husbandry 30 .....	\$ 1.00	Bacteriology 103 .....	3.00
Architecture 13 .....	1.00	Bacteriology 105 .....	3.00
Architecture 14 .....	1.00	Botany 1 .....	2.00
Architecture 15 .....	1.00	Botany 2a .....	1.50
Architecture 16 .....	1.00	Botany 2b .....	1.00
Architecture 31 .....	1.00	Botany 3a .....	3.00
Architecture 32 .....	1.00	Botany 3b .....	2.00
Architecture 43 .....	1.00	Botany 4 .....	1.00
Architecture 44 .....	1.00	Botany 4a .....	1.00
Architecture 45 .....	1.50	Botany 4b .....	1.00
Architecture 46 .....	1.50	Botany 6 .....	(See Bact.)
Architecture 68 .....	1.50	Botany 7a .....	5.00
Architectural Engineering 43 .....	1.00	Botany 7b .....	5.00
Architectural Engineering 44 .....	1.00	Botany 8 .....	(See Bact.)
Architectural Engineering 45 .....	1.50	Botany 9a (per hr.) .....	.50
Architectural Engineering 46 .....	1.50	Botany 9b (per hr.) .....	.50
Architectural Engineering 47 .....	1.50	Botany 16a .....	1.00
Architectural Engineering 48 .....	1.50	Botany 16b .....	1.00
Architectural Engineering 68 .....	1.50	Botany 17a .....	1.00
Bacteriology 5 .....	7.50	Botany 17b .....	1.00
Bacteriology 5a .....	7.50	Botany 19 .....	(See Bact.)
Bacteriology 6 .....	4.00	Botany 20 .....	1.00
Bacteriology 8 .....	6.00	Botany 22a (per hr.) .....	.50
Bacteriology 19 .....	7.50	Botany 22b (per hr.) .....	.50
Bacteriology 26 .....	7.50	Botany 26 .....	(See Bact.)

Botany 101 . . . . .	3.00	Civil Engineering 91 . . . . .	.75
Botany 102 . . . . .	3.00	Civil Engineering 92 . . . . .	.75
Botany 103 . . . . .	(See Bact.)	Civil Engineering 93 . . . . .	.50
Botany 104 . . . . .	3.00	Civil Engineering 96 . . . . .	1.00
Botany 105 . . . . .	(See Bact.)	Electrical Engineering 16 . . . . .	3.00
Botany 106 . . . . .	6.00	Electrical Engineering 24 . . . . .	4.00
Ceramics 1 . . . . .	2.00	Electrical Engineering 27 . . . . .	4.00
Ceramics 5 . . . . .	5.00	Electrical Engineering 61 . . . . .	3.00
Ceramics 6 . . . . .	5.00	Electrical Engineering 62 . . . . .	3.00
Ceramics 11 . . . . .	5.00	Electrical Engineering 64 . . . . .	3.00
Ceramics 12 . . . . .	2.00	Electrical Engineering 68 . . . . .	3.00
Ceramics 13 . . . . .	4.00	Electrical Engineering 75 . . . . .	4.00
Ceramics 14 . . . . .	4.00	Electrical Engineering 76 . . . . .	4.00
Ceramics 15 . . . . .	4.00	Entomology 1a . . . . .	1.00
Ceramics 16 . . . . .	4.00	Entomology 1b . . . . .	1.00
Chemistry 1 . . . . .	8.00	Entomology 2 . . . . .	1.50
Chemistry 1a . . . . .	6.00	Entomology 3 . . . . .	1.50
Chemistry 1b . . . . .	6.00	Entomology 4a . . . . .	1.50
Chemistry 2a . . . . .	8.00	Entomology 4b . . . . .	1.50
Chemistry 3a . . . . .	8.00	Entomology 5 . . . . .	1.50
Chemistry 2a ( $\frac{1}{2}$ sem.). . . . .	5.00	Entomology 6a . . . . .	2.00
Chemistry 4 . . . . .	8.00	Entomology 6b . . . . .	2.00
Chemistry 5a . . . . .	10.00	Entomology 7 . . . . .	1.50
Chemistry 5b . . . . .	10.00	Entomology 8a . . . . .	1.50
Chemistry 5c . . . . .	10.00	Entomology 8b . . . . .	1.50
Chemistry 5c (3 hrs.) . . . . .	8.00	Entomology 9 . . . . .	1.50
Chemistry 5d . . . . .	10.00	Entomology 10 . . . . .	1.00
Chemistry 8 . . . . .	8.00	Entomology 11 . . . . .	1.50
Chemistry 9a . . . . .	10.00	Entomology 13 . . . . .	1.50
Chemistry 9b . . . . .	10.00	Entomology 14 . . . . .	1.50
Chemistry 9c . . . . .	10.00	Entomology 102 . . . . .	1.50
Chemistry 10a . . . . .	5.00	Entomology 103 . . . . .	1.50
Chemistry 10b ( $\frac{1}{2}$ sem.) . . . . .	5.00	Entomology 108 . . . . .	1.50
Chemistry 11b, (per hr.) . . . . .	2.00	Entomology 109 . . . . .	1.50
Chemistry 13a . . . . .	10.00	General Engineering Drawing 2 . . . . .	1.00
Chemistry 13b . . . . .	10.00	General Engineering Drawing 12 . . . . .	1.00
Chemistry 15 . . . . .	8.00	Geology 1 . . . . .	2.25
Chemistry 16 . . . . .	5.00	Geology 1a . . . . .	1.00
Chemistry 21 . . . . .	8.00	Geology 2 . . . . .	1.00
Chemistry 22 . . . . .	10.00	Geology 3 . . . . .	2.25
Chemistry 27 . . . . .	8.00	Geology 4 . . . . .	3.00
Chemistry 33 . . . . .	8.00	Geology 5 . . . . .	2.75
Chemistry 35 . . . . .	8.00	Geology 5a . . . . .	2.75
Chemistry 61 . . . . .	5.00	Geology 6 . . . . .	1.00
Chemistry 65 . . . . .	5.00	Geology 7 . . . . .	1.00
Chemistry 66 . . . . .	3.00	Geology 8 . . . . .	1.00
Chemistry 68a . . . . .	8.00	Geology 9 . . . . .	1.00
Chemistry 68b . . . . .	8.00	Geology 10 . . . . .	1.00
Chemistry 69 . . . . .	5.00	Geology 11 . . . . .	1.00
Chemistry 70 . . . . .	3.00	Geology 12 . . . . .	2.25
Chemistry 71 . . . . .	3.00	Geology 13a . . . . .	2.25
Chemistry 72 . . . . .	3.00	Geology 13b . . . . .	2.25
Chemistry 78 . . . . .	5.00	Geology 14 . . . . .	1.00
Chemistry 80 . . . . .	3.00	Geology 15 . . . . .	1.00
Chemistry 102c . . . . .	5.00	Geology 16 . . . . .	1.00
Chemistry 103 . . . . .	10.00	Geology 17 . . . . .	1.00
Chemistry 103a . . . . .	10.00	Geology 18 . . . . .	1.00
Chemistry 104 . . . . .	5.00	Geology 23 . . . . .	1.00
Chemistry 104a . . . . .	5.00	Household Science 1 . . . . .	3.00
Chemistry 105a (per hr.) . . . . .	2.00	Household Science 4 . . . . .	5.00
Chemistry 106 . . . . .	10.00	Household Science 5a . . . . .	2.00
Chemistry 107 (per hr.) . . . . .	2.00	Household Science 5b . . . . .	2.00
Chemistry 108 . . . . .	5.00	Household Science 6 . . . . .	3.00
Chemistry 110 . . . . .	10.00	Household Science 10 . . . . .	2.00
Chemistry 111 (per hr., maximum \$10) . . . . .	2.00	Household Science 14a . . . . .	5.00
Civil Engineering 13a . . . . .	.50	Household Science 14b . . . . .	5.00
Civil Engineering 13b . . . . .	.50	Household Science 17 . . . . .	2.00
Civil Engineering 27 . . . . .	.75	Household Science 18a . . . . .	5.00
Civil Engineering 28 . . . . .	.75	Household Science 18b . . . . .	5.00
Civil Engineering 31 . . . . .	.75	Mechanical Engineering 23 . . . . .	3.00
Civil Engineering 32 . . . . .	.75	Mechanical Engineering 25 . . . . .	1.00
Civil Engineering 33 . . . . .	.75	Mechanical Engineering 26 . . . . .	1.50
Civil Engineering 34 . . . . .	.75	Mechanical Engineering 54 . . . . .	1.00
Civil Engineering 51 . . . . .	1.00	Mechanical Engineering 61 . . . . .	2.00
Civil Engineering 53 . . . . .	.75	Mechanical Engineering 62 . . . . .	3.00
Civil Engineering 58 . . . . .	.50	Mechanical Engineering 64 . . . . .	3.00
Civil Engineering 60 . . . . .	.50	Mechanical Engineering 65 . . . . .	3.00
Civil Engineering 62 . . . . .	.75	Mechanical Engineering 66 . . . . .	3.00
Civil Engineering 76 . . . . .	.50	Mining 9 . . . . .	2.00
Civil Engineering 79 . . . . .	1.00	Mining 19 . . . . .	2.00
Civil Engineering 82 . . . . .	.75	Mining 62 . . . . .	1.00
Civil Engineering 83 . . . . .	.75	Mining 64 . . . . .	3.00
Civil Engineering 85 . . . . .	1.00	Mining 66 . . . . .	3.00
Civil Engineering 88 . . . . .	.75	Municipal and Sanitary Engineering 2 . . . . .	1.00

Municipal and Sanitary Engineering 3	1.00	Physiology 5b	.....	3.50
Municipal and Sanitary Engineering 6a	1.00	Physiology 103	.....	3.50
Photography 1	8.00	Psychology 3	.....	2.00
Physics 3a	2.00	Psychology 4	.....	2.00
Physics 3b	2.00	Railway Engineering 63	.....	3.00
Physics 4a	2.00	Theoretical and Applied Mechanics 10	.....	1.00
Physics 4b	2.00	Theoretical and Applied Mechanics 15	.....	1.00
Physics 8a	2.00	Theoretical and Applied Mechanics 16	.....	1.00
Physics 8b	2.00	Theoretical and Applied Mechanics 25	.....	2.00
Physics 10a	2.00	Theoretical and Applied Mechanics 26	.....	1.00
Physics 10b	2.00	Theoretical and Applied Mechanics 29	.....	2.00
Physics 15	2.00	Zoology 1	.....	2.50
Physics 16	2.00	Zoology 2	.....	3.50
Physics 17	2.00	Zoology 3	.....	3.00
Physics 18	2.00	Zoology 4	.....	2.50
Physics 22	2.00	Zoology 6	.....	3.00
Physics 24	2.00	Zoology 7	.....	1.00
Physics 25	2.00	Zoology 9	.....	2.00
Physics 31a	2.00	Zoology 11	.....	3.00
Physics 31b	2.00	Zoology 14a (per hr.)	.....	1.00
Physics 32	2.00	Zoology 14b (per hr.)	.....	1.00
Physiology 1	3.50	Zoology, 15a (per hr.)	.....	1.00
Physiology 2	3.50	Zoology 15b (per hr.)	.....	1.00
Physiology 3	3.50	Zoology 17	.....	1.00
Physiology 4a	3.50	Zoology 18	.....	1.00
Physiology 4b	3.50	Zoology 22	.....	2.00
Physiology 5a	3.50	Zoology 23	.....	2.00

### AVERAGE ANNUAL EXPENSES

The following are estimated average annual expenses for undergraduate students attending at Urbana, *exclusive* of books, clothing, railroad fare, laboratory fees, if any, and small miscellaneous needs:

*Semester fees .....	\$ 24.00 to \$ 24.00
Room rent for each student (two in room).....	72.00 to 80.00
Table board in boarding houses and clubs.....	162.00 to 200.00
Washing .....	20.00 to 30.00
Total .....	\$272.00 to \$334.00
Board and room in private house, a week.....	\$ 5.50 to \$ 6.50

In addition to the foregoing, freshmen pay a matriculation fee of \$10.00, and the men are required to buy a cadet uniform and equipment, which costs \$20.95. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about \$18.00.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than \$375.00 to \$500.00. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fee, see page 117.

### Board and Rooms

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

*Prospective women students and their parents are invited to correspond with the Dean of Women in regard to suitable places.*

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\*Students of law and music, special students, and conditioned students must make needed changes in the amount given for "semester fees."

PART II  
THE COLLEGES AND SCHOOLS



# THE COLLEGE OF LIBERAL ARTS AND SCIENCES

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For a description of the *buildings* used by this College, see page 51; for *museums and collections* belonging to it (classical art and archeology, education, European culture, botany, entomology, geology, and zoology), see pages 62-64; for a summary of its *courses*, see page 68; for *clubs and societies* auxiliary to its curriculums, see page 115; for *fees*, see page 122.

## ORGANIZATION

The organization of the College of Liberal Arts and Sciences, in which are merged the former College of Literature and Arts and College of Science, became fully effective on July 1, 1913, following an action of the Board of Trustees taken on July 5, 1912. During the period of transition from the old order of two Colleges to the new single College, various temporary adjustments are necessary; procedure according to the regulations of the former Colleges, especially in matters like requirements for graduation, elective subjects, honors, and combined courses, must continue for certain groups of students already registered. Beginning in September, 1916, a new schedule of requirements for admission to the College of Liberal Arts and Sciences will go into full operation. Changes in the requirements for graduation with the degree of Bachelor of Arts have been worked out by the Faculty and approved by the Board of Trustees. These are described as the "New Requirements" and are effective for classes entering in 1913 and later. Students in other classes may proceed under the old or the new requirements. The requirements of the former Colleges are printed in separate paragraphs wherever necessary.

## PURPOSE

The purpose of the College of Liberal Arts and Sciences is, first, to secure to its students a liberal education including both the humanities and the sciences; second, to furnish especially arranged curriculums preparatory to later professional and technical studies by which good students may ordinarily obtain in six years both the degree in arts and a professional degree in law or medicine, or a technical degree in engineering; and, third, to provide certain highly specialized curriculums in applied science (particularly chemistry), journalism, and household science. The degree of Bachelor of Arts is conferred upon the completion of all these curriculums, except those in applied science, for which the degree of Bachelor of Science is given.

Under the modified elective system a student who desires to prepare for teaching may specialize to a considerable extent in the subject which he wishes to teach and may also find time for courses in education and related subjects of interest to teachers. Such students should, as a rule, continue their preparation in the Graduate School.

Students who desire to devote a considerable part of their undergraduate study to specific preparation for some calling other than teaching may select courses in (1) journalism; or (2) applied chemistry; or (3) household administration.

### ADMISSION

See the statement of the entrance requirements of the University, pages 71-96.

### SPECIAL STUDENTS

For a statement of the regulations of the University in regard to special students, see page 79.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, though unable to meet the formal requirements for entrance, are substantially prepared for work of college grade, and have a specific and clearly defined purpose in their study.

### GENERAL REQUIREMENTS FOR GRADUATION

Since the merger of the College of Literature and Arts and the College of Science in July, 1913, the faculty of the new College of Liberal Arts and Sciences has adopted a unified curriculum leading to the degree of Bachelor of Arts. The present seniors, however, will as a rule conform their courses to the old requirements, while the juniors, sophomores, and freshmen must follow the new requirements. These are printed separately for convenience of reference.

#### **I. Old Requirements for the Degree of Bachelor of Arts**

The following general requirements apply to all candidates for the degree of Bachelor of Arts who were admitted before 1913.

**A. University Requirements.**—Each candidate must meet the general University requirements as to residence and registration. He must also secure credit in approved courses (see pages 130-135 below) amounting to 130 hours. An hour is one class period a week for one semester, each class period presupposing two hours' preparation by the student, or the equivalent in laboratory or drawing room.

**B. Prescribed Studies.**—Subjects specifically prescribed for all students: *Rhetoric 1-2\** (6 hours); *Physical Training, 1-2 and 1a for men; 7a-7b and 1a for women*; *Military Science 1 and 2 for men*. In addition, students who propose to make a science their major subject, are required to have *Chemistry 1*, and *Physics 7a, 7b (or 1a, 1b)* unless they have had one-year courses in these subjects in an accredited high school or acceptable equivalent courses elsewhere.

**C. (1) Group Requirements for the degree according to the schedule of the former College of Literature and Arts.**—Every candidate must offer a minimum of 8 hours in each of the following groups:

I. English, including literature and rhetoric.

II. Ancient and modern languages other than English, including Greek, Latin, the Germanic languages, and the Romance languages. Only courses which require the use of a foreign language may be counted in this group, and the 8 hours offered must be in one language.

III. The social sciences, including history, economics, political science, and sociology.

IV. Mathematics and philosophy, including mathematics, education, philosophy, and psychology. A candidate who elects mathematics must take at least five hours. If a student does not elect mathematics, his elections in this

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\*Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 79.

group must include work in at least two of the other departments of the group. That is, if he does not take mathematics, he must take either philosophy and psychology, or philosophy and education, or education and psychology. With the exception of mathematics, no subject of this group is open to freshmen.

V. The natural sciences, including astronomy, botany, chemistry, entomology, geology, physiology, physics, and zoology. Zoology 16 may not be counted toward this group requirement.

C. (2) *Group Requirements for the degree according to the schedule of the former College of Science.*—Each candidate must offer 8 hours in each of the following groups: 1, 2, 3, and 5. In group 4, 16 hours must be offered, provided that students who have had three years of work in foreign language in an accredited high school, or an equivalent course elsewhere, will be relieved from the requirement of Group 4, and similarly, those who have had one year or two years of foreign language may be relieved from 4 hours or 8 hours respectively of this requirement. The physics and chemistry of the prescribed list may be applied on the requirements of groups 1 and 2.

*Group 1.*—Mathematics, physics, astronomy, logic (Philosophy 1), mineralogy (Geology 5).

*Group 2.*—Chemistry, geology, household science, bacteriology.

*Group 3.*—Botany, zoology, physiology, psychology, entomology.

*Group 4.*—Foreign language.

*Group 5.*—English literature, history, political science, economics, philosophy, education.

D. (1) *Major Subjects according to the former College of Literature and Arts.*—Each candidate must select some one subject to be designated as his major, and secure credit in that subject to the amount of 24 hours. The courses selected for the last two years should include some distinctly advanced work. The subjects which are recognized as majors at present are as follows: Classics<sup>1</sup>; economics; education; English<sup>2</sup> (including English literature and rhetoric); French<sup>3</sup>; German<sup>4</sup>; Greek<sup>5</sup>; history; household science; Latin<sup>6</sup>; mathematics; philosophy; political science; psychology; sociology.

Suggestions for students in household science are indicated below, on page 138. Students holding scholarships in household science must make that subject their major, and take one of the courses outlined on pages 139 and 140 below.

D. (2) *Major Subjects according to the former College of Science.*—A total credit of at least 20 hours must be secured in some one of the divisions of the following major elective list. Not more than 40 hours' work (exclusive of thesis) in any one of these divisions may be applied toward graduation. In arranging the subjects to be counted toward the major requirement the student is advised to consult with the head of the department in which the major is taken.

Major electives are: Astronomy, botany, chemistry, education, entomology, geology (including mineralogy and physical geography), household science, library science, mathematics, physics, physiology, psychology, and zoology.

<sup>1</sup>For the definition of the major in this subject, see below, page 303.

<sup>2</sup>For the definition of the major in English, see below, page 324.

<sup>3</sup>A major in French must include 24 hours in addition to French 1a-1b.

<sup>4</sup>A major in German must include 24 hours in addition to German 1 and 3.

<sup>5</sup>For the definition of the major in this subject, see page 302.

E. *Elective Subjects.*—The remainder of the course is made up of electives chosen under defined conditions.

1. Credit is regularly given for courses properly announced in the following subjects: Art and design (the total credit in this department is limited to 20 hours), astronomy, bacteriology, botany, business organization and operation, chemistry, the classics, comparative literature, comparative philology, economics (including accountancy and commercial law), education, English (including rhetoric and public speaking), entomology, geology (including geography and mineralogy), Germanic languages, history, household science, library science, mathematics, philosophy, physical training, physics, physiology, political science, psychology, Romance languages, sociology, zoology.

2. Not more than 40 hours in any one subject may be counted for graduation, except when the student is writing a thesis. In this case he may count, in addition to the 40 hours, the hours of the seminar course in which he does his thesis work. In the department of English a student may take 40 hours in addition to Rhetoric 1 and 2.

3. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours of credit for one semester, he must stay in the class during the semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.

4. Seniors graduating under the schedule of the former College of Literature and Arts who register in courses open to freshmen may receive only one-half of the credit regularly assigned to such courses. For the year 1915-1916 the following courses are included in this list: Art and Design 1 and 2; Botany 1, 4d; Chemistry 1; English 10-11, 20; Entomology 1a-1b, 4, 15, 16; French 1a-1b; Geology 3, 14; German 1, 3; Greek 1a-1b; History 1a-1b, 2a-2b; Household Science 2, 7a-7b; Latin 1a-1b, 6; Library Science 12; Mathematics 2, 4; Rhetoric 1-2; Spanish 1a-1b; Zoology 1, 16.

5. A limited amount of credit toward the degree of Bachelor of Arts is ordinarily given for courses offered in other colleges and schools of this University. Students who continue under the schedule of the former College of Science may select, with the approval of the Dean, approximately one-third of the work to be counted toward a degree, from subjects given in other colleges of the University. Students who continue under the schedule of the former College of Literature and Arts will ordinarily confine their elections of work in other colleges and schools to the following courses:

*Physical Training.*—Not to exceed 5 semester hours.

*Military Science and Tactics.*—Military Science 1 and 2.

*Law.*—See page 138.

*Engineering.*—General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 20 and 21 (Analytical Mechanics); Mechanical Engineering 12 or 11 (Thermodynamics); Civil Engineering 96 or 27 (Surveying); Architecture 31, 32 (Architectural Drawing); Architecture 13, 14, 15, 16 (History of Architecture); Electrical Engineering 4 and 64, or 8 and 68.

*Agriculture.*—Agricultural Extension (Elementary Agriculture for teachers); Agronomy 25 (Seeds); Agronomy 9 (Soil Physics); Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Animal Husbandry 30 (Genetics); Farm Management 1; Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (Amateur Floriculture), for household science students only. The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

*Library Science.*—Library 3a-3b (Selection of Books); 7 (History of Libraries); 9 (History of Books and Printing); 2a-2b or 12 (General Reference); 13a-13b (Public Documents). The total credit allowed in Library Science will not ordinarily exceed 14 hours. The course in General Reference (Library 12) is of special value to underclassmen in the courses in Literature and Arts.

*Music.*—1-2, 3-4, 5-6, 7-8, 9-10, and 12-13 (courses in history and theory of music).

Courses not listed under paragraphs 1 to 5 above may not be counted for the degree of Bachelor of Arts, except by special permission of the Dean of the College.

*F. Bachelors' Theses.*—A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as a part of the work in some course for which the student is registered. Students desiring to take a thesis course in geology or mineralogy may add to their credits in those subjects the credits received for chemistry; and students in physiology may add to their credits in that subject those in zoology and bacteriology. Only students graduating with a thesis will, as a rule, be selected for fellowships, scholarships, and other similar university honors. Candidates for honors or the honor degree are required by the general regulations of the University to write a thesis. See above, page 99.

## II. New Requirements for the Degree of Bachelor of Arts

Students who were admitted in 1913 and later will conform to the following requirements for the degree of Bachelor of Arts.

*A. University Requirements.*—Each candidate must meet the general university requirements with respect to registration and residence. He must also secure credit in approved courses amounting to one hundred thirty hours, an hour being one class period a week for one semester. Each class period presupposes two hours preparation by the student, or the equivalent in the laboratory or drawing room.

*B. Prescribed Subjects.*—Rhetoric 1-2; Physical Training 1-2 and 1a for men; Physical Training 7a-7b and 9 for women; Military Science 1 and 2 for men.

*C. Group Requirements.*—Every candidate must offer the minimum of work specified in each of the following groups:

I. *English.*—The offering in this group must include at least a one-semester course in literature.

**II. Foreign Languages and Literatures** (exclusive of courses in translation).

If a student has offered but two units of a foreign language for entrance to the University, he must pursue the study of foreign language through two year-courses or the equivalent. If he has offered for entrance three or more units of foreign language, he must continue the study of foreign language through one year of his college course.

*Note:* Candidates for the degree who have not offered Greek or Latin or French or German for entrance must offer one of these languages for graduation.

**III. History, Political and Social Science.**—History, economics, political science, sociology: 8 hours.

**IV. Mathematics and Physical Science.**—Mathematics, astronomy (courses with college mathematics as prerequisites), physics, chemistry: 8 hours.

V. Botany, entomology, geology, physiology, zoology: 8 hours.

**VI. Education, philosophy, psychology:** 6 hours, of which 3 shall be in philosophy or psychology.

**D. Major Subjects.**—Each candidate must select some subject as his major. A major consists of courses amounting to 20 hours chosen from among those designated by a department and approved by the faculty of the college. Such courses are to be exclusive of those elementary or beginning courses which are open to freshmen, and inclusive of some distinctly advanced work. See the statements regarding majors under departmental announcements in Part III.

The subjects at present recognized as majors in this college are: Astronomy, bacteriology, botany, chemistry, classics, education, economics, English, entomology, French, geology, German, Germanic languages, Greek, history, household science, Latin, mathematics, philosophy, physiology, physics, political science, psychology, Romance languages, sociology, zoology.

**E. Minor Subjects.**—Each candidate must offer, in addition to his major, a minor of 20 hours in one or more allied subjects designated by the major department and approved by the faculty of the college. At least 8 hours must be offered in one subject. See the statements regarding minors under departmental announcements in Part III.

**F. Elective Subjects.**—

1. Not more than 40 hours in any one subject may be counted for graduation, except: (a) in special curriculums approved by the faculty of the college; (b) when a student is writing a thesis, he may count, in addition to the 40 hours, the hours of the course in which he does his thesis work; (c) in the department of English a student may take 40 hours in addition to Rhetoric 1-2.

*Note:* The total credit in art and design is limited to 20 hours.

2. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours for one semester, he must stay in the class during one semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.
3. A limited amount of credit toward the degree of Bachelor of Arts is ordinarily given for courses offered in other colleges and schools of this University, as follows:

*Physical Training:* Not to exceed 5 semester hours.

*Military Science and Tactics:* Military Science 1 and 2.

*Law:* See page 138.

*Engineering:* General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 20 and 21 (Analytical Mechanics); Mechanical Engineering 12 and 11 (Thermodynamics); Civil Engineering 96 or 27 (Surveying); Architecture 31, 32 (Architectural Drawing); Architecture 13, 14, 15, 16 (History of Architecture); Electrical Engineering 4 and 64, or 8 and 68. The total credit allowed in these engineering courses will not ordinarily exceed 24 hours.

*Agriculture:* Agricultural Extension 1 (Elementary Agriculture for Teachers); Agronomy 12 (Soil Fertility), Agronomy 25 (Seeds), Agronomy 9 (Soil Physics); Farm Management 1; Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Animal Husbandry 30 (Genetics); Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (Amateur Floriculture), for household science students only. The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

*Library Science:* Library 7 (History of Libraries); 9 (History of Books and Printing); 2a-2b or 12 (General Reference); 13a-13b (Public Documents). The course in General Reference (Library 12) is of special value to students in the College of Liberal Arts and Sciences.

*Music:* Music 1-2, 3-4, 5-6, 7-8, 9-10, and 12-13 (courses in the history and theory of music).

Courses not listed under paragraphs 1 to 5 above may not be counted for the degree of Bachelor of Arts, except by special permission of the Dean of the College.

*G. Bachelors' Theses:* A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as part of the work in some course for which the student is registered. The presentation of a thesis is specifically required of all candidates for the honor degree.

#### *Requirements for the Degree of Bachelor of Science*

Pending further action by the College of Liberal Arts and Sciences and by the Senate, students admitted to work leading to the degree of Bachelor of Science in the General Science Curriculum [see under "The Old Requirements," especially paragraphs C(2) and D(2)], who have completed that curriculum

including a major in Groups 4 or 5, together with two year-courses or their equivalent in foreign language, will be graduated with the degree of Bachelor of Science.

### ARRANGEMENT OF COURSES

#### First Year

##### *Subjects Prescribed for Freshmen*

The following subjects must be taken during the freshman year: *Rhetoric 1-2\**, three hours each semester; *Military 2*, one hour each semester, and *Military 1*, one hour second semester (for men); *Physical Training* (Physical Training 1-2 and 1a for men; 7a-7b and 9 for women). Students who enter for the General Science Curriculum should take *Chemistry 1*, unless chemistry has been accepted for admission.

##### *Freshman Electives*

The following subjects are open to freshmen. The total amount taken in any semester is limited to eighteen hours, and should not be less than fifteen.

#### **FIRST SEMESTER**

- I. English 10<sup>1</sup> (3)<sup>2</sup>; Rhetoric 1 (3).
- II. French 1a (4) or 2a (4); German 1 (4) or 2 (4) or 4 (4) or 5 (4); Greek 1a (4) or 7 (3); Latin 6 (4), 1a (4) or 2a (4); Spanish 1a (4) or 2a (3) or 3a (2); Italian 1a (3).
- III. Mathematics 2 (3) and 4 (2).
- IV. Economics 7 (3) and 26 (3); History 1a (4) or 2a (3).
- V. Botany 1<sup>3</sup> (5), 4d (3); Chemistry 1<sup>4</sup> (5) or 1a<sup>4</sup> (3); Entomology 1a (2), 4 (3), 15 (3); Geology 3<sup>4</sup> (5), 14 (3); Physics 7a<sup>5</sup> and 8a<sup>5</sup> (5); Zoology 1<sup>4</sup> (5).

Household Science 2 (2) or 7a (2).

Library Science 12 (2).

Art and Design 1 (3).

#### **SECOND SEMESTER**

- I. English 11<sup>1</sup> (3)<sup>2</sup>; Rhetoric 2 (3).
- II. French 1b (4) or 2b (4); German 3 (4) or 4 (4) or 5 (4) or 6 (4) or 7 (4) or 12 (4); Greek 1b (4), 4 (4), or 6 (3); Latin 1b (4), or 2b (4); Spanish 1b (4) or 2b (3) or 3b (2); Italian 1b (3).
- III. Mathematics 6 (5).
- IV. Economics 22 (3) and 27 (3); History 1b (4) or 2b (3).
- V. Astronomy 4 (5); Botany 1<sup>3</sup> (5), 2b (5), 3b (5), 4 (3), 4a (5), 4b (5), 4c (5); Chemistry 1<sup>4</sup> (5) or 1a<sup>4</sup> (3) or 2a (5); Entomology 1b (2), 4 (3), 16 (2); Geology 3<sup>4</sup> (5) 12 (5), 23 (5); Physics 7b<sup>5</sup> and 8b<sup>5</sup> (5); Physiology 4 (5); Zoology 2 (5), 1<sup>4</sup> (5), or 16 (2).

Household Science 1 (3)<sup>6</sup>.

Art and Design 1 (3).

\*See special examination in Rhetoric 1, page 79.

<sup>1</sup>English 10-11 is open only to freshmen who have presented the minimum amount of English required for admission. See the description of this course, page 324.

<sup>2</sup>The figure immediately following the subject is the number of the course (see page 257; the figure in parenthesis indicates the number of credit hours to be secured in the course each semester).

<sup>3</sup>Either semester.

<sup>4</sup>May be taken in either semester, but not in both.

<sup>5</sup>Prerequisite: Mathematics 4 (Trigonometry) which may be taken at the same time.

<sup>6</sup>Prerequisite: Entrance credit in Physics, and Chemistry 1 or 1a.

### Second Year

Male students must continue Military 2 throughout the year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

#### Election

Aside from the subjects prescribed for the first two years, each student selects, with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

### CURRICULUM IN JOURNALISM

Students who are preparing for reportorial, literary, or editorial work in journalism should take their major work in English, and make up their study schedules from the following suggested curriculum. With the consent of the adviser, other studies may, for purposes of specialization, be substituted for those suggested. A program which satisfies the group and major requirements may, for instance, be so modified in the third and fourth years as to lay emphasis on any one of the social sciences.

Students in journalism with major in English are subject to the requirements of the General Curriculum in Liberal Arts and Sciences.

#### Suggested Curriculum in Journalism

*(Major in English)*

##### FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
Prescribed Subjects	Hours <sup>1</sup>	Prescribed Subjects	Hours <sup>1</sup>
Military 2a—Military Drill.....	1	Mil. 1—Drill Regulations.....	1
Phys. Tr. 1 and 1a—Gymnasium and		Mil. 2b—Military Drill.....	1
Hygiene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	5	Total .....	5

##### Suggested Electives

Eng. 10—Introduction to Literature—or science .....	3 or 5
Foreign language .....	4
Hist. 1a—Continental European History.	4
Lib. 12—General Reference.....	2

##### Suggested Electives

Eng. 11—Introduction to Literature—or science .....	3
Foreign language .....	4
Hist. 1b—Continental European History.	.4

##### SECOND YEAR

Prescribed Subjects		Prescribed Subjects	
Mil. 2c—Military Drill.....	1	Mil. 1—Drill Regulations .....	1
Suggested Electives		Suggested Electives	
Eng. 1—Survey of English Literature—or science.....	3 or 4 or 5	Eng. 1—Survey of English Literature—or Pol. Sc. 3—State and Local Government or Econ. 3—Money and Banking.....	3
Eng. 12—American Literature.....	2	Eng. 23—Shakespeare, or English 13, American Literature .....	3 or 2
Foreign language continued .....	4	Foreign language continued.....	4
Hist. 3a—History of United States.....	3	Hist. 3b—History of United States.....	3
Pol. Sc. 1—American National Government or Econ. 1—Principles of Economics	5	Rhet. 13—The Newspaper.....	3
Rhet. 12—News Writing .....	3		

<sup>1</sup>Semester hours. For definition, see page 259.

## THIRD AND FOURTH YEARS

Study lists for these years should be selected from the following list with regard to proper sequence.

Econ. 5, or 10, or 12a—Public Finance, or Corporation Management, or Labor Problems .....	3	Econ. 11, or 13, or 21—Industrial Consolidation, or Econ. Hist. of Europe, or Socialism and Social Reform.....	3 or 2
English 27 and 21, or 33 or 45—History of Journalism; The Bible; or Literature from 1789 to 1837; or Modern Drama .....	2 or 3	English 28 and 24 or 3 or 5—Hist. of Journalism, Victorian Period, Milton, Shakespeare .....	2 or 3
History 21—U. S. since 1877, 26—The Latin American Colonies .....	3	History 17, 27, 29—Hist. of Illinois, Latin America, The Far East .....	3 or 2
Language .....	4	Language .....	4
Philosophy 1—Logic, and Phil. 9—Political Ethics, or Pol. Sci. 5—Const. Law .....	3 or 2 or 4	Philosophy 2—Introd. to Phil. ....	3
Pol. Sci. 14—Political Parties—or Pol. Sci. 4—Municipal Gov't. ....	3	Pol. Sci. 18, or 28—Contemporary Politics .....	3 or 2
Psychology 1—Introd. to Psychology.....	3	Psychology 1—Introd. to Psychology....	3
Rhet. 6, 15, 26, 28—Short Story, Editorials and Special Articles, Editorial Practise, Newspaper Problems .....	3	Rhet. 16, 17, 27, 29—Editorials and Special Articles, Advanced Composition, Editorial Practise, Making a Country Newspaper .....	2 or 3
Sociology 1—Principles of Sociology.....	3	Sociology 9—Criminology .....	3

## CURRICULUM PRELIMINARY TO LAW

In accordance with the principle, that professional studies in law should be preceded by a thoro course in the humanities and the sciences, the College of Law requires for admission the completion of two years of work in the liberal arts and sciences with special emphasis upon work in English, public speaking, Latin, French, logic, and studies in the social science group. On page 215 will be found suggestions for a combination of these subjects to make up a schedule covering two years of a curriculum preparatory to the study of law.

This College offers, in addition to the two years of preparatory work, a curriculum in liberal arts and law by which a student may take both the degree of Bachelor of Arts and the degree of Bachelor of Laws (LL.B.) or of Doctor of Law (J.D.) in six years. A student who has senior standing in this College may take and count the first full year of law work for thirty hours of credit toward the degree of Bachelor of Arts, but if he takes, or successfully carries, less than full work in law it shall be counted only hour for hour toward the degree of Bachelor of Arts. *Students in this College are not permitted to take any work in law until their senior year.* Students who take this combined curriculum should file their study lists during the fourth year with the adviser for seniors in this College in addition to their registration in the College of Law. This College will not recommend for the degree of Bachelor of Arts any student who has not completed in residence at least thirty hours' work in subjects offered by this College.

Courses in law may not be counted as a major in this college but may be offered as a minor by a student whose major is in political science or history, according to regulations stated in the departmental announcements.

The former requirement that candidates for the degree of Doctor of Law (J.D.) must take certain work in history, economics, political science, or sociology in this College during the fourth year of the curriculum, has been abrogated.

## HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of four classes of students: (a) those students who desire a knowledge of the general principles and facts of household science; (b) those students who wish to make a specialty of household science for the purpose of teaching

the subject in secondary schools and colleges; (c) those students who wish some knowledge of the principles underlying household administration and institutional management; (d) those students who are interested in the work of dietitians.

The suggested curriculums for teachers and for institutional workers are outlined below. The first three years of the curriculum as outlined for teachers give a scientific basis for the work of the dietitian.

Students who hold scholarships in household science must make this subject their major along one of the lines indicated above and take each semester at least four hours in household science or in subjects required for admission to courses in household science.

Students who major in household science must also satisfy the requirements of the General Curriculum in the College of Liberal Arts and Sciences in so far as these are not covered in the curriculums given below.

### Suggested Curriculum for Teachers of Household Science

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Chem. 1—Inorganic Chemistry or.....	5	Chem. 2a—Inorg. Chem. and Qual. Anal..	5
<sup>2</sup> Chem. 1a—Inorganic Chemistry.....	3	Foreign language .....	4
Foreign language .....	4	<sup>8</sup> H. Sci. 1—Principles of the Selection and Preparation of Food.....	3
H. Sci. 2—Home Arch. and Sanitation.....	2	Phys. Tr. 7—Physical Training.....	1
Phys. Tr. 7—Physical Training.....	1	Rhet. 2—Rhetoric and Themes.....	3
Phys. Tr. 9—Hygiene.....	1		
Rhet. 1—Rhetoric and Themes.....	3		
Total .....	14 or 16	Total .....	16
SECOND YEAR			
A. & D. 1—Free Hand Drawing.....	3	A. & D. 12—Applied Design.....	2
Chem. 13a—Agricultural Analysis.....	5	Bot. 1—General Botany or Zool. 1—General Zoology.....	5
Eng. 1—Survey of English Literature....	4	Chem. 9—Organic Chemistry.....	3
H. Sci. 6—Economic Uses of Food.....	3	Chem. 9c—Organic Synthesis.....	2
Lib. Sci. 12—General Reference.....	2	Eng. 2—Survey of English Literature.....	4
		H. Sci. 7—Textiles.....	2
Total .....	17	Total .....	18
THIRD YEAR			
Econ. 2—Principles of Economics.....	3	Bact. 5—Bacteriology.....	5
Hist. 1a—Continental European Hist. or Hist. 3a—History of the U. S....	4 or 3	Hist. 1b—Continental European Hist. or Hist. 3b—History of the U. S....	4 or 3
H. Sci. 19—Dress Design.....	2	H. Sci. 3—Home Decoration.....	2
Physiol. 4—General Physiology .....	5	H. Sci. 5—Dietetics.....	3
		H. Sci. 12—Clothing.....	3
Total .....	13	Total .....	16
Electives		Electives	
Philos. 1—Logic.....	3	H. Sci. 14—Problems in the Preparation and Service of Food.....	3
Psychol. 1—Introduction to Psychology..	3	Philos. 2—Introduction to Philosophy.....	3
		Psychol. 2—General Psychology.....	3
FOURTH YEAR			
Edu. 1—Introduction to Education.....	4	Educ. 10—Technique of Teaching.....	3
H. Sci. 4—Food and Nutrition.....	5	H. Sci. 11—Teachers' Course.....	3
H. Sci. 13—Hist. of Home Economics..	2		
Total .....	11	Total .....	6
Electives		Electives	
Edu. 16—Social Education.....	3	English, Advanced	
English, Advanced		H. Sci. 10—Home Management.....	2
H. Sci. 18—Lunch Room Management..	5	H. Sci. 17—Problems in Textiles.....	3
Public Speaking 1—Oral Expression....	2	Public Speaking 2—Oral Expression....	2
Sociol. 1—Principles of Sociology.....	3	Sociol. 7—Social Problems of the Rural Community .....	2

<sup>1</sup>Semester hours. For definition see page 259.

<sup>2</sup>If Chemistry 1a is taken, a 2-hour elective must be added, with the approval of the adviser.

<sup>3</sup>Attention is called to the fact that high school physics is a prerequisite for Household Science 1.

**Suggested Curriculum in Household Administration**

		FIRST YEAR		
		FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER
Chem. 1—Inorganic Chemistry or.....	5	Chem. 2a—Inorg. Chem. and Qual. Anal.	5	Hours <sup>1</sup>
<sup>2</sup> Chem. 1a—Inorganic Chemistry.....	3	Foreign language .....	4	
Foreign language .....	4	<sup>3</sup> H. Sci. 1—Principles of the Selection and		
H. Sci. 2—Home Arch. and Sanitation .....	2	Preparation of Food.....	3	
Phys. Tr. 7—Physical Training .....	1	Phys. Tr. 7—Physical Training.....	1	
Phys. Tr. 9—Hygiene.....	1	Rhet. 2—Rhetoric and Themes.....	3	
Rhet. 1—Rhetoric and Themes .....	3			
Total .....	14 or 16	Total .....	16	
		SECOND YEAR		
A. & D. 1—Free Hand Drawing.....	3	A. & D. 12—Applied Design.....	2	
Foreign language or English 1.....	4	Bot. 1—General Botany or		
H. Sci. 6—Economic Uses of Food.....	3	Zool. 1—General Zoology .....	5	
H. Sci. 7—Textiles.....	2	Foreign language or English 2 .....	4	
Total .....	12	Total .....	11	
		<i>Electives</i>		
A. & D. 19—History of the Fine Arts... 2		A. & D. 19—History of the Fine Arts... 2		
<sup>4</sup> Chem. 13a—Agricultural Analysis or		<sup>4</sup> Chem. 9—Organic Chemistry and..... 3		
<sup>4</sup> Econ. 26—Economic Resources.... 5 or 3		Chem. 9c—Organic Synthesis or		
Hist. 1a—Continental European Hist. or		<sup>4</sup> Econ. 22—Econ. Hist. of U. S.... 2 or 3		
Hist. 3a—History of the U. S.... 3 or 4		Hist. 1b—Continental European Hist. or		
Lib. Sci. 12—General Reference..... 2		Hist. 3b—History of the U. S.... 3 or 4		
		THIRD YEAR		
Econ. 1—Principles of Economics..... 5		H. Sci. 3—Home Decoration..... 2		
H. Sci. 19—Dress Design..... 2		H. Sci. 5—Dietetics .....	3	
Physiol. 4—General Physiology..... 5		H. Sci. 12—Clothing .....	3	
Psychol. 1—Introduction to Psychology. 3		Psychol. 2—General Psychology or		
Total .....	15	Edu. 1—Intro. to Education..... 3 or 4		
		<i>Electives</i>		
English		Total .....	11 or 12	
H. Sci. 14—Problems in the Preparation and Service of Food..... 3		<i>Electives</i>		
Sociol. 1—Principles of Sociology..... 3		Bact. 5—Introduction to Bacteriology.... 5		
		FOURTH YEAR		
		H. Sci. 10—Home Management..... 2		
		Philos. 2—Introduction to Philosophy.... 3		
		Pol. Sci. 3—State and Local Government. 3		
		Pol. Sci. 16—Government of Illinois..... 2		
		<i>Suggested Electives</i>		
Edu. 1—Introduction to Education..... 4		<i>Suggested Electives</i>		
English, Advanced		Edu. 10—Observation and Technic..... 3		
H. Sci. 4—Food and Nutrition..... 5		English, Advanced		
H. Sci. 13—History of Home Economics. 2		H. Sci. 9—Seminar .....	3	
H. Sci. 15—Economics of the Family Group .....	3	H. Sci. 11—Teachers' Course..... 3		
H. Sci. 18—Lunch Room Management... 5		H. Sci. 17—Problems in the Study of textiles .....	3	

**SIX-YEAR AND SEVEN-YEAR MEDICAL CURRICULUMS**

The requirement for admission to the four-year medical curriculum (whether the first year of the curriculum is taken at Urbana or in the College of Medicine in Chicago) is as follows: 60 semester hours of college work, including 8 in chemistry, 8 in physics, 8 in biology, 6 in French or German, and 30 elective.

The University offers a six-year and a seven-year medical curriculum. The six-year curriculum includes three years given at Urbana and three years in the College of Medicine in Chicago. The third of the three years given at Urbana is technically described as a one-year medical college curriculum. The

<sup>1</sup>Semester hours. For definition see page 259.

<sup>2</sup>If Chemistry 1a is taken, a 2-hour elective must be added, with the approval of the adviser.

<sup>3</sup>Attention is called to the fact that high school physics is a prerequisite for Household Science 1.

<sup>4</sup>Choice depends upon whether the student wishes to emphasize the sciences or economics as a minor.

seven-year curriculum includes four years of collegiate work at Urbana and three years in the College of Medicine in Chicago. One of the four years at Urbana is devoted to the work of the one-year medical college curriculum. The work given at Urbana includes substantially in both curriculums the work of the first year of a standard curriculum in medicine, together with two years or three years in liberal arts and sciences. Students who have completed the work of the first two years and are taking the work of the third year are registered in both the one-year medical college curriculum and the College of Liberal Arts and Sciences.

A student who has completed the curriculum outlined below, covering two years of premedical work and the one-year medical college curriculum at Urbana, may receive credit by transfer for one year of work in the College of Medicine of the University of Illinois or other standard colleges of medicine, and upon the completion of the second year's work in such a college of medicine may receive the degree of Bachelor of Science on the recommendation of the faculty of the College of Liberal Arts and Sciences in the University of Illinois. Under this plan the student may receive the degrees of Bachelor of Science and Doctor of Medicine with six years of work.

Students who wish to take the fourth year in the College of Liberal Arts and Sciences, including the one-year medical college curriculum, are not held to the group requirements prescribed for students taking the regular degree of Bachelor of Arts. The curriculum must be made up with the approval of the adviser for seniors and of the Dean of the College. It is recommended that selection be made from the following courses: Bacteriology; Chemistry 5b, 5c, 9a, 9b, 14a-14b, 21, 22, 31, 105, and 106; Entomology 2, 3; Physiology 5; Zoology 4, 5, 8a-8b, 21a-21b, 22, 23, 25-26; modern languages; and studies included in Group 5 of the general curriculum in science, page 131. On the completion of this fourth year, the student takes the degree of Bachelor of Arts before going to the College of Medicine.

#### FIRST YEAR

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1—General Chemistry.....	5	Chem. 2a—Inorganic Chemistry.....	5
Math. 4—Trigonometry.....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military.....	1	Mil. 2b—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene.....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Zool. 1—General Zoology.....	5	Zool. 2—Vertebrate Zoology .....	5
Total .....	17	Total .....	16

#### SECOND YEAR

Chem. 5a—Quantative Analysis.....	5	Chem. 9, 9c—Organic Chemistry.....	5
German 1 or 4 <sup>2</sup> , or Latin.....	4	German 3 or 5 or 6 <sup>2</sup> , or Latin.....	4
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Physics 7a—General Physics.....	2½	Physics 7b—General Physics.....	2½
Physics 8a—Laboratory .....	2½	Physics, 8b—Laboratory .....	2½
Zool. 3—Microscopal Technics.....	3	Zool. 6—Vertebrate Organogeny.....	3
Total .....	18	Total .....	18

#### THIRD YEAR

(One-Year Medical College Curriculum)

FIRST SEMESTER	Hours	SECOND SEMESTER	Hours
Chem. 15—Physiological Chemistry.....	7	Bact. 5a—Introductory Bacteriology.....	6
Physiol. 1—Histology .....	3	Physiol. 2—Experimental Physiology.....	5
Physiol. 4—General Physiology.....	5	Physiol. 8—Histology .....	5
Zool. 7a—Human Anatomy.....	3	Zool. 7b—Introduction to Human Anatomy	3
Total .....	18	Total .....	19

<sup>1</sup>Semester hours. For definition see page 259.

### CURRICULUM IN CHEMISTRY

Students who follow the General Curriculum in the College of Liberal Arts and Sciences with chemistry as a major subject are eligible for the degree of Bachelor of Arts.

For the more specialized training of the chemist the following curriculum, largely prescribed, has been arranged. It requires a maximum total of 136 hours, and leads to the degree of Bachelor of Science in chemistry.

Preliminary preparation in German or French equivalent to two years of high school work or one year of university work is prescribed. The total language requirement for graduation in the curriculum in chemistry, including courses offered for entrance, must be equivalent to two years of university German and one year of university French.

In the following schedule of courses, effective in 1915-16, after the second year there are offered certain *prescribed subjects* required of all students and in addition five *group options*, the last four of which are outlined for the purpose of affording systematic training along certain important lines of applied chemistry. The first option, A, is intended for those students who wish to place chief emphasis upon the fundamental branches of chemistry as a science and for those students who desire a combination of subjects not outlined in the other four groups. Students in option A must submit to their adviser at the beginning of the junior year an outline of their proposed program for the junior and senior years. Approval of such an outline must be secured from the adviser before registering. At least 12 hours of the electives under option A must be in chemistry and it is recommended that they be selected as far as possible from more advanced courses in inorganic, analytical, organic, and physical chemistry. In all groups, except B, 10 hours of the electives must be taken outside of the department and must include a course in economics.

The groups provided for, with the letter used to designate each group, are as follows:

- A. General
- B. Electrochemical
- C. Industrial
- D. Food and sanitation
- E. Physiological

#### Curriculum in Chemistry

##### FIRST YEAR

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1 or 1a—Inorganic Chemistry.....	5 or 3	Chem. 3a—Inorganic Chemistry and Qualitative Analysis.....	6
German or French.....	4	German or French.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Plane Trigonometry.....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3		
Total .....	19 or 17	Total .....	18

##### SECOND YEAR

Chem. 5a—Quantitative Analysis.....	5	Chem. 5b—Advanced Analytical Chemistry	5
French or German.....	4	French or German.....	4
Mil. 2c—Military Drill.....	1	History 2 or 3 or English 20.....	3
Phys. 1a—General Physics.....	3	Mil. 2d—Military Drill.....	1
Phys. 3a—Physical Measurements.....	2	Phys. 1b—General Physics.....	2
Rhet. 2—Rhetoric and Themes.....	3	Phys. 3b—Physical Measurements.....	2

Total ..... 18

Total ..... 17

<sup>1</sup>Semester hours. For definition see page 259

## THIRD YEAR

## Prescribed for all Groups

Chem. 9a—Organic Synthesis and Ultimate Analysis.....	2
Chem. 14a—Organic Chemistry.....	4
Chem. 92a—Journal Meeting.....	1
*Math. 8—Differential and Integral Calculus .....	5
Total .....	12

## Group Options

A.—General Electives .....	5
*B.—Electrochemical Economics 1; or Economics 2 with 3 additional hours other than Chemistry .....	5
C.—Industrial Chem. 65—Technical Gas and Fuel Analysis .....	2
D. and E.—Food and Physiological Bot. 5—Introductory Bacteriology... .	5
Total .....	24

## Prescribed for all Groups

Chem. 9b—Organic Synthesis and Qualitative Analysis.....	2
Chem. 14b—Principles of Organic Chemistry .....	2
Chem. 31—Principles of Physical Chemistry .....	4
Chem. 33—Physical Chemistry Laboratory 2	
Chem. 92b—Journal Meeting.....	1
Total .....	11

## Group Options

A.—General Electives .....	5
B.—Electrochemical E. E. 8—Electric Currents and Apparatus .....	3
E. E. 68—Electrical Engineering Laboratory .....	1-7
Math. 9.....	3
C.—Industrial Elective .....	2-6
One inspection trip	
E. E. 8—Electric Currents and Apparatus .....	3
E. E. 68—Electrical Engineering Laboratory .....	1
D. and E.—Food and Physiological Chem. 15—Physiological Chemistry .. .	5
Elective .....	2-7

## FOURTH YEAR

## Prescribed for all Groups

Chem. 11—Research.....	3
Chem. 93a—Journal Meeting.....	1
Chem. 95—History of Chemistry.....	2

Total .....	6
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## Group Options

A.—General Electives .....	11
B.—Electrochemical Chem. 35—Electrochemistry .....	3
Chem. 37—Experimental Problems in Physical and Electrochemistry .....	4
Electives .....	2-11
Phys. 4a—Electrical and Magnetic Measurements .....	2
C.—Industrial Chem. 7—Metallurgy .....	3
Chem. 35—Electrochemistry .....	3
Chem. 69—Metallurgical Laboratory and Assaying .....	2
Electives .....	3-11
D.—Food and Sanitation Chem. 5c—Food Analysis .....	5
Chem. 21—Qualitative Organic Analysis .....	2
Electives .....	3-10
E.—Physiological Chem. 18a or Chem. 22.....	5
Electives .....	5-10

## Prescribed for all Groups

Chem. 6—Chemical Technology.....	3
Chem. 11—Research .....	7
Chem. 93b—Journal Meeting.....	1

Total .....	11
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## Group Options

A.—General Electives .....	5
B.—Electrochemical Electives .....	2-5
Philos. 1—Logic .....	3
C.—Industrial Chem. 61—Industrial Laboratory .....	3
Electives .....	3-6
D. and E.—Food and Physiological Electives .....	5

## Curriculum in Chemical Engineering

## FIRST YEAR

## FIRST SEMESTER

Hours<sup>1</sup>

Chem. 1 or 1a—Inorganic Chemistry .. .	5 or 3
German 4—Prose Reading .....	4
Math. 2—College Algebra .....	3
Math. 4—Plane Trigonometry .....	2
Mil. 2a—Military Drill .....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .. .	1

Total .....	16 or 14
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## SECOND SEMESTER

Hours<sup>1</sup>

Chem. 3a—Inorganic Chemistry and Qualitative Analysis .....	6
German 6—Scientific German .....	4
Math. 6—Analytical Geometry .....	5
Mil. 1—Drill Regulations .....	1
Mil. 2b—Military Drill .....	1
Phys. Tr. 2—Gymnasium .. .	1

Total .....	18
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<sup>1</sup>Semester hours. For definition see page 259.

\*Students electing Option B must register in Math. 7.

## SECOND YEAR

Chem. 5a—Quantitative Analysis.....	5	Chem. 5b—Advanced Analytical Chemistry	5
Math. 8—Differential and Integral Calculus	5	Mil. 2d—Military Drill.....	1
Mil. 2c—Military Drill.....	1	Phys. 1b—General Physics.....	2
Phys. 1a—General Physics.....	3	Phys. 2b—Physical Measurements.....	2
Phys. 3a—Physical Measurements.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	T. and A. M. 20—Analytical Mechanics...	3
Total .....	19	Total .....	16

## THIRD YEAR

Chem. 9a—Organic Synthesis and Ultimate Analysis .....	2	Chem. 9b—Organic Synthesis and Qualitative Organic Analysis .....	2
Chem. 14a—Organic Chemistry .....	4	Chem. 14b—Organic Chemistry.....	2
Chem. 92a—Journal Meeting .....	1	Chem. 31—Physical Chemistry .....	4
M. E. 75—Forge Work.....	1	Chem. 33—Physical Chemistry Laboratory .....	2
M. E. 77—Foundry Work.....	2	Chem. 92b—Journal Meeting.....	1
T. and A. M. 21—Analytical Mechanics..	2	Electives outside of the department.....	3
T. and A. M. 25—Resistance of Materials	4	E. E. 8—Electric Currents and Apparatus	3
		E. E. 68—Electrical Engineering Laboratory .....	1
		One inspection trip	
Total .....	16	Total .....	18

## FOURTH YEAR

Chem. 7—General Metallurgy and Iron and Steel .....	3	Chem. 6—Chemical Technology.....	3
Chem. 11a—Research .....	3	Chem. 11b—Research .....	6
Chem. 35—Electrochemistry .....	3	Chem. 61—Industrial Chemical Laboratory	3
Chem. 65—Technical Gas and Fuel Analysis .....	2	Chem. 93b—Journal Meeting.....	1
Chem. 69—Assaying .....	2	M. E. 64—Mechanical Engineering Laboratory .....	3
Chem. 93a—Journal Meeting.....	1	One inspection trip	
M. E. 1—Steam and Air Machinery.....	3		
Total .....	17	Total .....	16

# THE COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

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For a description of the *building* used by this College, see page 52, for *museum and collections* belonging to it, see page 64; for *societies and clubs auxiliary* to its curriculums, see page 115; for *fees*, see page 122.

## ORGANIZATION

The College of Commerce and Business Administration was established by the Board of Trustees in April, 1915, and opened the following September. The new college was given control of all the work formerly conducted by the department of economics, including the courses in business administration. The work of the college is divided into three separate departments as follows: economics, including finance and statistics; business organization and operation, including accountancy and business law; and transportation.

## PURPOSE

The purpose of the College of Commerce and Business Administration is to give its students a knowledge of the principles underlying all lines of business with special training for particular business callings. The College does not attempt to prepare students for clerical and similar occupations as employees, but does endeavor to lay a broad foundation on which successful careers in managerial and administrative positions and as proprietors may be built. To this end courses in economics, accountancy, business organization and operation, banking, commerce, railway administration, and industry are offered in combination with courses in language and literature, the social sciences, law, mathematics, and the natural sciences.

## ADMISSION

See the statement of the entrance requirements of the University, pages 71 to 96.

## SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 79.

## REQUIREMENTS FOR GRADUATION

### 1. The New Requirements—Degree of Bachelor of Science

Students who entered the College of Commerce and Business Administration with the class of 1919 and subsequent classes will be given the degree of Bachelor of Science.

The requirements for this degree are as follows:

1. A candidate must comply with the University requirements as to residence and registration and secure credit amounting to 130 hours including the general University requirements of *Rhetoric 1 and 2, 6 hours; and Physical Training, 1, 1a, and 2, 2 hours*, for men, and *7a-7b and 9, 3 hours*, for women; and *Military Science 1, 2a-2b, and 2c-2d, 5 hours*, for men.
2. A candidate must secure credit in the subjects listed as *prescribed* in his chosen curriculum.
3. Of the electives allowed, 8 hours must be in either English literature or foreign language in all curriculums except the Curriculum in Foreign Commerce and the Curriculum for Commercial Teachers, in which foreign language is prescribed.
4. In the General Business Curriculum, the Curriculum in Banking, the Curriculum in Insurance, the Curriculum in Accountancy, the Curriculum in Railway Administration, and the Curriculum for Commercial and Civic Secretaries, 12 hours must be elected in the following group of subjects: history, political science, philosophy, psychology, and sociology, provided that not less than six hours in any one subject may be counted in fulfilling the requirement.
5. In all curriculums in which less than 10 hours of mathematics is prescribed in the first year, 10 hours must be elected in the following group of subjects: chemistry, geology, mathematics, and physics, provided that not less than 5 hours in any one subject may be counted in fulfilling the requirement.

Students are advised to take the subjects required in paragraphs 3, 4, and 5 as early as possible in their course in order to leave more opportunity for free electives in the last years. In choosing free electives students must secure the advice and approval of the Dean of the College or of the official adviser for the curriculums they are pursuing.

## **II. The Old Requirements—Degree of Bachelor of Arts**

The graduation requirements for former students in the Courses in Business Administration enrolled in the College of Commerce and Business Administration will remain as they have been in the past and such students will be given the degree of Bachelor of Arts.

The requirements are as follows:

1. Credit amounting to 130 hours, including the prescribed rhetoric, physical training, and military.
2. At least 8 hours in each of the following groups of subjects:
  - I. English language and literature, including rhetoric.
  - II. Latin, Greek, French, German, Italian, Spanish.
  - III. History, economics, sociology, political science.
  - IV. Mathematics, education, philosophy, psychology.
  - V. Astronomy, botany, chemistry, entomology, geology, physiology, physics, zoology.

## 3. Credit in the following subjects:

- I. Six hours of freshman economics (Economics 7, 22, 26, and 27). In case of students transferring from other colleges with advanced standing this requirement may be modified to suit individual needs.
  - II. Principles of Economics (Economics 1).
  - III. Business Writing (Rhetoric 10), Senior Conference on Written Work (Rhetoric 25-26).
  - IV. Principles of Accounting (Accountancy 1a-1b).
  - V. Commercial Law (Business Law 1a-1b).
4. A Major of 24 hours in economics, but not more than six hours of freshman economics (Economics 7, 22, 26, and 27) may be counted towards the major. Courses in accountancy and business law may not be counted towards the major.

This statement of requirements for the degree of Bachelor of Arts is an abbreviation of the "old requirements" for graduation from the College of Liberal Arts and Sciences. For the details of these requirements, see pages 130-133. The outlines of curriculums on the following pages for the second, third and fourth years must also be used in connection with the above statement of requirements and attention must be given to the additional subjects prescribed in different curriculums.

### THE CURRICULUMS

The curriculums offered in the College and outlined in the following pages furnish training for (1) general business, (2) commercial and civic secretaries, (3) banking, (4) insurance, (5) accountancy, (6) general railway administration, (7) railway transportation, (8) commercial teachers, (9) foreign commerce. The curriculums are now in process of transition owing to the recent reorganization of the work in commerce and business administration and the adoption of new requirements for graduation. The outlines which follow are, therefore, arranged to show the work of each year as the curriculums are taught in 1915-16.

#### General Business Curriculum as Taught in 1915-16

The subjects listed for the first year are prescribed for students of the class of 1919. An option is allowed between Economics 26 and 7 the first semester, and between Economics 22 and 27 the second semester. In addition to prescribed subjects students must take sufficient electives to make a minimum of 15 hours, but not to exceed a maximum of 18 hours, of work each semester.

#### FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources or		Econ. 22—Economic History of United	
Econ. 7—English Economic History... .	3	States or	
Electives .....	4 to 7	Econ. 27—Modern Industries .....	3
Mil. 2a—Military Drill .....	1	Electives .....	3 to 6
Phys. Tr. 1 and 1a—Gymnasium and		Mil. 1—Drill Regulations.....	1
Hygiene .....	1	Mil. 2b—Military Drill.....	1
Rhet. 1—Rhetoric and Themes.....	3	Phys. Tr. 2—Gymnasium.....	1
Total .....	15 to 18	Rhet. 2—Rhetoric and Themes.....	3
		Total .....	15 to 18

<sup>1</sup>Semester hours. For definition see page 259.

## SECOND YEAR FOR THE CLASS OF 1918

*Prescribed Subjects*

Econ. 1—Principles of Economics.....	5
Hist. 3a—History of United States or	
Hist. 2a—English History or	
Hist. 1a—European History.....	3 or 4
Mil. 2c—Military Drill.....	1
Pol. Sci. 1—American Government.....	3
Total .....	12 or 13

*Suggested Electives*

Foreign language continued.....	
Mathematics .....	
Phil. 1—Logic .....	3
Science .....	

*Prescribed Subjects*

Econ. 3—Money and Banking.....	3
Hist. 3b—History of United States or	
Hist. 2b—English History or	
Hist. 1b—European History.....	4 or 3
Mil. 2d—Military Drill.....	1
Pol. Sci. 3—State and Local Government	3
Rhet. 10—Business Writing.....	2

Total ..... 13 or 12

## THIRD YEAR FOR THE CLASS OF 1917

*Prescribed Subjects*

Acc'y 1a—Principles of Accounting.....	3
Econ. 10—Corporation Management.....	3
Econ. 28—Domestic Commerce.....	3

*Prescribed Subjects*

Acc'y 1b—Principles of Accounting.....	3
Bus. Org. and Op. 2—Organization and	
Control of Mercantile Distribution.....	3
Econ. 29—Foreign Commerce or	
Econ. 31—Organization of Foreign Com-	
merce .....	3
Trans. 12—Freight Shipment.....	2

Total ..... 11

*Suggested Electives*

Bus. Org. and Op. 1—Business Organiza-	
tion and Operation.....	3
Econ. 5—Public Finance.....	3
History .....	
Psych. 1—Psychology.....	3
Rhet. 22—Summarizing and Abstracting	2
Trans. 1—Transportation System.....	3

*Suggested Electives*

Econ. 11—Industrial Consolidations.....	3
History .....	
Psych. 2—Psychology.....	3
Trans. 2—Transportation Policy.....	3

## FOURTH YEAR FOR THE CLASS OF 1916

*Prescribed Subjects*

Bus. Law 1a—Commercial Law.....	3
Bus. Org. and Op. 7—Salesmanship.....	3
Rhet. 25—Conference on Written Work. 1	

*Prescribed Subjects*

Bus. Law 1b—Commercial Law.....	3
Bus. Org. and Op. 8—Advertising.....	3
Rhet. 26—Conference on Written Work.. 1	

Total ..... 7

Total ..... 7

*Suggested Electives*

Acc'y 2a—Advanced Accounting and Aud-	
iting .....	3
Bus. Org. and Op. 3—Business Procedure	2
Econ. 4—Financial History of U. S.....	3
Econ. 12a—Labor Problems.....	3
Phil. 9—Political Ethics .....	2

*Suggested Electives*

Acc'y 2b—Advanced Accounting and Aud-	
iting .....	3
Bus. Org. and Op. 4—Industrial Organiz-	
ation and Management.....	2
Bus. Org. and Op. 9—Commercial and	
Civic Organization .....	1
Econ. 12b—Labor Problems.....	3
Econ. 13—Economic Development of	
Europe .....	3

## Curriculum for Commercial and Civic Secretaries as Taught in 1915-16

The subjects listed for the first year are prescribed for students of the class of 1919. An option is allowed between Economics 26 and 7 the first semester, and between Economics 22 and 27 the second semester. In addition to prescribed subjects students must take sufficient electives to make a minimum of 15 hours, but not to exceed a maximum of 18 hours, of work each semester.

## FIRST YEAR FOR THE CLASS OF 1919

## FIRST SEMESTER

Hours<sup>1</sup>

Acc'y 1a—Principles of Accounting.....	3
Econ. 26—Economic Resources or	
Econ. 7—English Economic History....	3
Electives .....	4 to 7
Mil. 2a—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hy-	
giene .....	1
Rhet. 1—Rhetoric and Themes.....	3

## SECOND SEMESTER

Hours<sup>1</sup>

Acc'y 1b—Principles of Accounting.....	3
Econ. 22—Economic History of United	
States or	
Econ. 27—Modern Industries.....	3
Electives .....	3 to 6
Mil. 2b—Military Drill.....	1
Mil. 1—Drill Regulations.....	1
Phys. Tr. 2—Gymnasium.....	1
Rhet. 2—Rhetoric and Themes.....	3

Total ..... 15 to 18

Total ..... 15 to 18

<sup>1</sup>Semester hours. For definition see page 259.

SECOND YEAR FOR THE CLASS OF 1918

<i>Prescribed Subjects</i>	<i>Hours<sup>1</sup></i>	<i>Prescribed Subjects</i>	<i>Hours<sup>1</sup></i>
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Hist. 3a—History of United States or		Hist. 3b—History of United States or	
Hist. 2a—English History or		Hist. 2b—English History or	
Hist. 1a—European History.....	3 or 4	Hist. 1b—European History.....	3 or 4
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Pol. Sci. 1—American Government.....	3	Pol. Sci. 3—State and Local Government	3
Total .....	12 or 13	Rhet. 10—Business Writing.....	2

*Suggested Electives*

Foreign language continued.....		Foreign language continued.....	
Mathematics .....		Mathematics .....	
Phil. 1—Logic.....	3	Phil. 1—Logic.....	3
Science .....		Science .....	

THIRD YEAR FOR THE CLASS OF 1917

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 10—Corporation Management.....	3	Bus. Org. and Op. 2—Organization and	
Econ. 28—Domestic Commerce.....	3	Control of Mercantile Distribution.....	3
Pol. Sci. 4—Municipal Government.....	3	Econ. 31—Organization of Foreign Com-	
Total .....	12	merce or	
		Econ. 29—Foreign Commerce.....	3
		Sociology 8—Charities.....	3

*Suggested Electives*

Bus. Org. and Op. 1—Business Organiza-		Suggested Electives	
tion and Operation.....	3	Econ. 11—Industrial Consolidation.....	3
Phil. 9—Political Ethics.....	2	Econ. 34—Property Insurance.....	2
Pol. Sci. 13—State Administration.....	3	Pol. Sci. 12—National Administration.....	3
Rhet. 22—Summarizing and Abstracting..	2	Pol. Sci. 16—Government of Illinois.....	2
Sociology 1—Principles of Sociology.....	3		

FOURTH YEAR FOR THE CLASS OF 1916

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Bus. Law 1a—Commercial Law.....	3	Bus. Law 1b—Commercial Law.....	3
Bus. Org. and Op. 3—Business Procedure	2	Bus. Org. and Op. 4—Industrial Organiza-	
Bus. Org. and Op. 7—Salesmanship....	3	tion and Management.....	2
Rhet. 25—Conference on Written Work..	1	Bus. Org. and Op. 9—Commercial and	
Total .....	9	Civic Organizations.....	1
		Bus. Org. and Op. 8—Advertising.....	3
		Rhet. 26—Conference on Written Work.	1
		Trans. 12—Freight Shipment .....	2

Total .....

Total .....

Total .....

*Suggested Electives*

Econ. 12a—Labor Problems .....	3	Suggested Electives	
Econ. 51—Public Utilities.....	3	Econ. 21—Socialism and Economic Reform	2
Sociology 10—Population.....	3	Econ. 12b—Labor Problems.....	3
Trans. 1—Transportation System.....	3	Sociology 9—Criminology .....	3

*Curriculum in Banking as Taught in 1915-16*

The subjects listed for the first year are prescribed for students of the class of 1919. An option is allowed between Economics 26 and 7 the first semester, and between Economics 22 and 27 the second semester. In addition to prescribed subjects, students must take sufficient electives to make a mini-

<sup>1</sup>Semester hours. For definition see page 259.

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mum of 15 hours, but not to exceed a maximum of 18 hours, of work each semester. Banking students must elect advanced algebra (Math. 2) in either the first or the second year as a prerequisite for the mathematics of investment (Math. 23) in the third year.

### FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources or		Econ. 22—Economic History of United	
Econ. 7—English Economic History.....	3	States or	
Electives .....4 to 7		Econ. 27—Modern Industries.....	3
Mil. 2a—Military Drill.....	1	Electives .....3 to 6	
Phys. Tr. 1 and 1a—Gymnasium and Hy-		Mil. 2b—Military Drill.....	1
giene .....1		Mil. 1—Drill Regulations.....	1
Rhet. 1—Rhetoric and Themes.....	3	Phys. Tr. 2—Gymnasium.....	1
Total .....15 to 18		Rhet. 2—Rhetoric and Themes.....	3
		Total .....15 to 18	

### SECOND YEAR FOR THE CLASS OF 1918

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Hist. 3a—History of United States or		Hist. 3b—History of United States or	
Hist. 2a—English History or		Hist. 2b—English History or	
Hist. 1a—European History.....3 or 4		Hist. 1b—European History.....3 or 4	
Mil. 2c—Military Drill.....1		Mil. 2d—Military Drill.....1	
Pol. Sci. 1—American Government.....3		Pol. Sci. 3—State and Local Government	3
Total .....12 or 13		Rhet. 10—Business Writing.....2	
		Total .....12 or 13	
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Foreign language continued.....		Foreign language continued.....	
Phil. 1—Logic.....3		Phil. 1—Logic.....3	
Science .....		Science .....	

### THIRD YEAR FOR THE CLASS OF 1917

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 5—Public Finance.....	3	Bus. Org. and Op. 2—Organization and	
Econ. 10—Corporation Management.....	3	Control of Mercantile Distribution.....	2
Total .....9		Math. 23—Mathematics of Investment.....	3
		Total .....8	
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Bus. Org. and Op. 1—Business Organiza-		Econ. 11—Industrial Consolidations or	
tion and Operation.....3		Econ. 29—Foreign Commerce .....	3
Econ. 28—Domestic Commerce.....3		Econ. 31—Organization of Foreign Com-	
History .....		merce .....	3
		History .....	

### FOURTH YEAR FOR THE CLASS OF 1916

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Bus. Law 1a—Commercial Law.....	3	Bus. Law 1b—Commercial Law.....	3
Econ. 4—Financial History of United		Econ. 8—The Money Market.....	2
States .....	3	Rhet. 26—Conference on Written Work..	1
Econ. 9—Practical Banking.....2			
Rhet. 25—Conference on Written Work..	1		
Total .....9		Total .....6	
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Acc'y 2a—Advanced Accounting and Aud-		Acc'y 2b—Advanced Accounting and Aud-	
iting .....	3	iting .....	3
Bus. Org. and Op. 3—Business Procedure	2	Bus. Org. and Op. 4—Industrial Organiza-	
Econ. 12a—Labor Problems.....	3	tion and Management.....	2
Econ. 33—Economics of Insurance.....	2	Econ. 12b—Labor Problems.....	3
Phil. 9—Political Ethics .....	2	Econ. 34—Property Insurance.....	2

<sup>1</sup>Semester hours. For definition see page 259.

## Curriculum in Insurance as Taught in 1915-16

The subjects listed for the first year are prescribed for the class of 1919. An option is allowed between Economics 26 and 7 the first semester, and between Economics 22 and 27 the second semester.

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources or		Econ. 22—Economic History of United	
Econ. 7—English Economic History....	3	States or	
Math. 2—Advanced Algebra.....	3	Econ. 27—Modern Industries.....	3
Math. 4—Trigonometry.....	2	Math. 6—Analytical Geometry.....	5
Mil. 2a—Military Drill.....	1	Mil. 1—Drill Regulations.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hy-		Mil. 2b—Military Drill.....	1
giene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	16	Total .....	16

## SECOND YEAR FOR THE CLASS OF 1918

Prescribed Subjects		Prescribed Subjects	
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Math. 8—Calculus.....	5	Math. 23—Mathematics of Investment...3	
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Pol. Sci. 1—American Government.....	3	Pol. Sci. 3—State and Local Government	3
Science— .....	5	Rhet. 10—Business Writing.....	2
Total .....	19	Science— .....	5
		Total .....	17

## THIRD YEAR FOR THE CLASS OF 1917

Prescribed Subjects		Prescribed Subjects	
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 10—Corporation Management.....	3	Bus. Org. and Op. 2—Organization and	
Math. 31—Actuarial Theory.....	3	Control of Mercantile Distribution.....	3
Total .....	9	Total .....	6
Suggested Electives		Suggested Electives	
Bus. Org. and Op. 1—Business Organiza-		Foreign language continued.....	
tion and Operation .....	3	Hist. 3b—History of United States.....	3
Econ. 5—Public Finance .....	3	Hist. 1b—European History.....	4
Foreign language continued.....		Phil. 1—Logic.....	3
Hist. 1a—European History.....	4		
Hist. 3a—History of United States.....	3		
Rhet. 22—Summarizing and Abstracting..	2		

## FOURTH YEAR FOR THE CLASS OF 1916

Prescribed Subjects		Prescribed Subjects	
Bus. Law 1a—Commercial Law.....	3	Bus. Law 1b—Commercial Law.....	3
Econ. 33—Economics of Insurance.....	2	Econ. 34—Property Insurance.....	2
Rhet. 25—Conference on Written Work..	1	Rhet. 26—Conference on Written Work..	1
Total .....	6	Total .....	6
Suggested Electives		Suggested Electives	
Bus. Org. and Op. 3—Business Procedure	2	Bus. Org. and Op. 4—Industrial Organi-	
Bus. Org. and Op. 7—Salesmanship.....	3	zation and Management.....	2
Econ. 4—Financial History of United		Bus. Org. and Op. 8—Advertising .....	3
States .....	3	Econ. 8b—Money Market.....	2
Econ. 9—Practical Banking.....	2	Econ. 12b—Labor Problems.....	3
Econ. 12a—Labor Problems.....	3		
Phil. 9—Political Ethics .....	2		

## Curriculum in Accountancy as Taught in 1915-16

The subjects listed for the first year are prescribed for the students of the class of 1919. An option is allowed between Economics 26 and 7 the first semester and between Economics 22 and 27 the second semester. In addition

<sup>1</sup>Semester hours. For definition see page 259.

to prescribed subjects students must take sufficient electives to make a minimum of 15 hours, but not to exceed a maximum of 18 hours, of work each semester. Accountancy students must elect advanced algebra (Math. 2) in either the first or the second year as a prerequisite for mathematics of investment (Math. 23) in the third year.

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources or		Econ. 22—Economic History of United	
Econ. 7—English Economic History.....	3	States or	
Electives .....	4 to 7	Econ. 27—Modern Industries.....	3
Mil. 2c—Military Drill.....	1	Electives .....	3 to 6
Phys. Tr. 1 and 1a—Gymnasium and Hy-		Mil. 1—Drill Regulations.....	1
giene .....	1	Mil. 2b—Military Drill.....	1
Rhet. 1—Rhetoric and Themes.....	3	Phys. Tr. 2—Gymnasium.....	1
Total .....	15 to 18	Rhet. 2—Rhetoric and Themes.....	3
		Total .....	15 to 18

## SECOND YEAR FOR THE CLASS OF 1918

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Science .....	5	Rhet. 10—Business Writing.....	2
Total .....	14	Science .....	5
		Total .....	14
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Foreign language continued .....		Foreign language continued .....	
Hist. 1a—European History.....	4	Hist. 1b—European History.....	4
Hist. 3a—History of United States.....	3	Hist. 3b—History of United States.....	3
Phil. 1—Logic .....	3	Pol. Sci. 3—State and Local Government	3
Pol. Sci. 1—American Government.....	3		

## THIRD YEAR FOR THE CLASS OF 1917

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Acc'y 2a—Advanced Accounting and Auditing .....	3	Acc'y 2b—Advanced Accounting and Auditing .....	3
Econ. 5—Public Finance .....	3	Bus. Org. and Op. 2—Organization and Control of Mercantile Distribution.....	3
Econ. 10—Corporation Management.....	3	Math. 23—Mathematics of Investment.....	3
Total .....	9	Total .....	9
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Acc'y 4a—Cost Accounting.....	3	Acc'y 4b—Cost Accounting.....	3
Bus. Org. and Op. 1—Business Organization and Operation.....	3	Econ. 29—Foreign Commerce or	
Econ. 28—Domestic Commerce.....	3	Econ. 31—Organization of Foreign Commerce .....	3
Rhet. 22—Summarizing and Abstracting .....	2	Econ. 11—Industrial Consolidation .....	3

## FOURTH YEAR FOR THE CLASS OF 1916

<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Acc'y 3a—Accounting Problems and Auditing .....	3	Acc'y 3b—Accounting Problems and Auditing .....	3
Bus. Law 1a—Commercial Law.....	3	Bus. Law 1b—Commercial Law.....	3
Rhet. 25—Conference on Written Work..	1	Rhet. 26—Conference on Written Work..	1
Total .....	7	Total .....	7
<i>Suggested Electives</i>		<i>Suggested Electives</i>	
Bus. Org. and Op. 3—Business Procedure	2	Bus. Org. and Op. 4—Industrial Organization and Management.....	2
Econ. 9—Practical Banking.....	2	Econ. 8—Money Market.....	2
Econ. 12a—Labor Problems.....	3	Econ. 12b—Labor Problems.....	3
Econ. 51—Public Utilities.....	3		
Phil. 9—Political Ethics.....	2		

<sup>1</sup>Semester hours. For definition see page 259.

**Curriculum in Railway Administration as Taught in 1915-16**

All junior and senior students in railway administration are required to take part in the annual inspection trip of four days' duration, commencing on the morning of the Tuesday before the Easter recess. The expenses of each member of the party need not exceed \$12 to \$15.

*Curriculum in Railway Administration*

(Hitherto called Course in Railway Traffic and Accounting)

The subjects listed for the first year are prescribed for students of the class of 1919.

**FIRST YEAR FOR THE CLASS OF 1919**

<b>FIRST SEMESTER</b>	<b>Hours<sup>1</sup></b>	<b>SECOND SEMESTER</b>	<b>Hours<sup>1</sup></b>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources.....	3	Econ. 22—Economic History of the United States .....	3
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill .....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	16	Total .....	17

**SECOND YEAR FOR THE CLASS OF 1918**

<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Acc'y 1a—Principles of Accounting.....	3
Econ. 1—Principles of Economics.....	5
Mil. 2c—Military Drill.....	1
Phys. 1a and 3a—Physics.....	6
Pol. Sci. 1—American Government.....	3
Trans. 7—Railway Organization.....	2
Total .....	19
	Total .....
	15

**THIRD YEAR FOR THE CLASS OF 1917**

<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Acc'y 2a—Advanced Accounting and Auditing .....	3
Econ. 10—Corporation Management.....	3
Electives .....	3 to 6
Trans. 1—Transportation System.....	3
Trans. 17—Railway Terminal Management or	
Trans. 13—Railway Traffic Administration	3
Total .....	15 to 18
	Total .....
	15

**FOURTH YEAR FOR THE CLASS OF 1916**

<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Acc'y 3a—Accounting Problems and Auditing .....	3
Bus. Law 1a—Commercial Law.....	3
Electives .....	3 to 6
Rhet. 25—Conference on Written Work..	1
Trans. 13—Railway Traffic Administration or	
Trans. 17—Railway Terminal Management .....	3
Trans. 35a—Thesis .....	2
Total .....	15 to 18
	Total .....
	15 to 18

<sup>1</sup>Semester hours. For definition see page 259.

### Curriculum in Railway Transportation

The subjects listed for the first year are prescribed for students of the class of 1919. In choosing additional courses in the second, third, and fourth years as described below, in order to make up the 130 hours of credit, six hours must be taken in history, political science, advanced language, or philosophy.

#### FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 12—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	17	Total .....	18

#### SECOND YEAR FOR THE CLASS OF 1918

<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Econ. 1—Principles of Economics.....	5
Math. 8—Calculus.....	5
Mil. 2c—Military Drill.....	1
Phys. 1a and 3a—Physics.....	5
Trans. 7—Railway Organization.....	2
Total .....	18
	Total .....
	15

#### THIRD YEAR FOR THE CLASS OF 1917

<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
T. & A. M. 21—Analytical Mechanics... 2	3
T. & A. M. 29—Resistance of Materials. 5	3
Trans. 1—Transportation System.....	3
Trans. 13—Railway Administration or	
Trans. 17—Railway Terminal Management 3	3
Total .....	13
	Total .....
	9

#### FOURTH YEAR FOR THE CLASS OF 1916

<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Acc'y 1a—Principles of Accounting.....	3
Econ. 12a—Labor Problems.....	3
E. E. 11 and 61—Direct Current.....	4
M. E. 62—Mechanical Engineering.....	3
Rhet. 25—Conference on Written Work.. 1	
Trans. 17—Railway Terminal Management or	
Trans. 13—Railway Traffic Administration 3	3
Trans. 35a—Thesis .....	2
Total .....	19
	Total .....
	18

<sup>1</sup>Semester hours. For definition see page 259.

## Curriculum for Commercial Teachers as Taught in 1915-16

The subjects listed for the first year are prescribed for students of the class of 1919. An option is allowed between Economics 26 and 7 the first semester, and between Economics 22 and 27 the second semester. In addition to prescribed subjects students must take sufficient electives to make a minimum of 15 hours, but not to exceed a maximum of 18 hours, of work each semester.

## FIRST YEAR FOR THE CLASS OF 1919

	FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3		Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources or			Econ. 22—Economic History of United	
Econ. 7—English Economic History.....	3		States or	
Electives .....	3		Econ. 27—Modern Industries.....	3
Foreign language.....	4		Electives .....	2
Mil. 2a—Military Drill.....	1		Foreign language.....	4
Phys. Tr. 1 and 1a—Gymnasium and Hy- giene .....	1		Mil. 1—Drill Regulations.....	1
Rhet. 1—Rhetoric and Themes.....	3		Mil. 2b—Military Drill.....	1
Total .....	18		Phys. Tr. 2—Gymnasium.....	1
			Rhet. 2—Rhetoric and Themes.....	3
			Total .....	18

## SECOND YEAR FOR THE CLASS OF 1918

	Prescribed Subjects	Prescribed Subjects	
Econ. 1—Principles of Economics.....	5	Econ. 3—Money and Banking.....	3
Hist. 3a—History of United States or		Hist. 3b—History of United States or	
Hist. 1a—European History.....	3 or 4	Hist. 1b—European History.....	3 or 4
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Pol. Sci. 1—American Government.....	3	Pol. Sci. 3—State and Local Government	3
Psychology 1—Intro. Psychology.....	3	Psychology 2—Intro. Psychology.....	3
Total .....	15 or 16	Rhet. 10—Business Writing.....	2
		Total .....	15 or 16

## Suggested Electives

English literature.....	
Foreign language continued.....	
Mathematics .....	
Science .....	

## THIRD YEAR FOR THE CLASS OF 1917

	Prescribed Subjects	Prescribed Subjects	
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 10—Corporation Management.....	3	Bus. Org. and Op. 2—Organization and	
Econ. 28—Domestic Commerce.....	3	Control of Mercantile Distribution.....	3
Educ. 1—Principles of Education.....	4	Econ. 29—Foreign Commerce or	
		Econ. 31—Organization of Foreign Com- merce .....	3
Total .....	13	Educ. 2—History of Education.....	5
		Total .....	14

## Suggested Electives

Bus. Org. and Op. 1—Business Organiza- tion and Operation.....	3
Econ. 5—Public Finance.....	3
Foreign language continued.....	
History .....	
Phil. 1—Logic.....	3
Pol. Sci. 4—Municipal Government.....	3
Rhet. 22—Summarizing and Abstracting..	2

## FOURTH YEAR FOR THE CLASS OF 1916

	Prescribed Subjects	Prescribed Subjects	
Bus. Law 1a—Commercial Law.....	3	Bus. Law 1b—Commercial Law.....	3
Econ. 12a—Labor Problems.....	3	Econ. 12b—Labor Problems.....	3
Educ. 10—Observation and Technics of Teaching .....	3	Educ. 16—Social Education or	
Rhet. 25—Conference on Written Work... 1	1	Educ. 15—School Hygiene.....	2 or 3
Total .....	10	Rhet. 26—Conference on Written Work.. 1	
		Total .....	9 or 10

## Suggested Electives

Acc'y 2a—Advanced Accounting and Aud- iting .....	3
Bus. Org. and Op. 3—Business Procedure 2	
Econ. 4—Financial History of United States .....	3
Econ. 9—Practical Banking.....	2
Phil. 9—Political Ethics.....	2

## Suggested Electives

Acc'y 2b—Advanced Accounting and Aud- iting .....	3
Bus. Org. and Op. 4—Industrial Organi- zation and Management.....	2
Econ. 8—The Money Market.....	2
Econ. 21—Socialism and Economic Re- form .....	2
Trans. 12—Freight Shipment.....	2

<sup>1</sup>Semester hours. For definition see page 259.

### Curriculum in Foreign Commerce

The subjects listed for the first year are prescribed for students of the class of 1919. An option is allowed between Economics 26 and 7 the first semester and between Economics 22 and 27 the second semester. In addition to prescribed subjects, students must take sufficient electives to make a minimum of 15 hours, but not to exceed a maximum of 18 hours, of work each semester.

NOTE.—This is a new curriculum and is introduced because of the growing demand for trained service in foreign trade and more particularly in Latin-American trade. In the remaining years of the curriculum emphasis will be laid on instruction in foreign language and correspondence, business organization and operation, history, international relations, foreign commerce, and international exchange and finance.

#### FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Acc'y 1a—Principles of Accounting.....	3	Acc'y 1b—Principles of Accounting.....	3
Econ. 26—Economic Resources or		Econ. 22—Economic History of United	
Econ. 7—English Economic History.....	3	States or	
Electives .....	3	Econ. 27—Modern Industries.....	3
Foreign language .....	4	Electives .....	2
Mil. 2a—Military Drill.....	1	Foreign language.....	4
Phys. Tr. 1 and 1a—Gymnasium and Hy- giene .....	1	Mil. I—Drill Regulations.....	1
Rhet. 1—Rhetoric and Themes.....	3	Mil. 2b—Military Drill.....	1
Total .....	18	Phys. Tr. 2.....	1
		Rhet. 2—Rhetoric and Themes.....	3
		Total .....	<u>18</u>

<sup>1</sup>Semester hours. For definition see page 259.

# THE COLLEGE OF ENGINEERING

For a description of the *buildings* used by this College, see page 52, for collections belonging to it (architecture, ceramic engineering, civil engineering, electrical engineering, mechanical engineering, and railway engineering), see page 65; for *clubs and societies auxiliary to its curriculums*, see page 115; for *fees*, see page 122; for *honors*, see page 99; for *honorary societies*, see page 114.

## GENERAL STATEMENT

The purpose of the College is to train men for the profession of engineering. In arranging its curriculums, cultural subjects are interwoven with the theoretical subjects of the several departments. The instruction of the classroom and the practise afforded by the library, the drafting-room, and the laboratory are correlated. Throughout his course the student works upon problems and proceeds by methods similar to those which arise in the experience of the practising engineer.

## ADMISSION

See the statement of the entrance requirements of the University, pages 71 to 96.

## SPECIAL STUDENTS

See the statement of the regulations of the University in regard to special students, page 79.

## DESCRIPTION OF DEPARTMENTS

The College of Engineering comprises the following departments:

### DEPARTMENT OF ARCHITECTURE, with curriculums in—

Architecture

Architectural Engineering

### DEPARTMENT OF CERAMIC ENGINEERING

### DEPARTMENT OF CIVIL ENGINEERING

### DEPARTMENT OF ELECTRICAL ENGINEERING

### DEPARTMENT OF MECHANICAL ENGINEERING

### DEPARTMENT OF MINING ENGINEERING

### DEPARTMENT OF MUNICIPAL AND SANITARY ENGINEERING

### DEPARTMENT OF THEORETICAL AND APPLIED MECHANICS

### DEPARTMENT OF PHYSICS

### DEPARTMENT OF RAILWAY ENGINEERING,<sup>†</sup> with curriculums in—

Railway Civil Engineering

Railway Electrical Engineering

Railway Mechanical Engineering

<sup>†</sup>The School of Railway Engineering and Administration (page 205) offers, in addition to the three curriculums named here, curriculums in railway transportation and railway administration under the direction of the College of Commerce and Business Administration. See pages 152-154 above.

## ARCHITECTURE

The department of architecture offers two curriculums leading to the first degree, the curriculum in architecture and the curriculum in architectural engineering. The aim of these curriculums is to give preparation for the practise of architecture.

The curriculum in architecture aims primarily to train the student to produce correct, thoughtful, and beautiful works of architecture. The schedule includes liberal and scientific subjects to supply the background for creative work and to give a knowledge of the principles involved in the processes of safe and economical construction; also freehand drawing for the purpose of training the eye to recognize correct proportion and training the hand to skilful and rapid drawing. The curriculum, however, consists mainly of the study of architectural forms and principles and their application in architectural design.

The curriculum in architectural engineering gives a groundwork in mathematics and applied mechanics, and includes such studies as strength of materials, bridge, mill, and tall building construction, reinforced concrete, etc. The principles of these subjects are applied to all forms of building construction in a course given in the senior year, known as architectural engineering. While specializing in construction, this curriculum includes also the study of the forms and principles of architecture through such subjects as free-hand drawing, architectural history, architectural drawing, and architectural design.

Both curriculums in architecture prepare the student for the examinations of the Illinois State Board of Examiners of Architects, and graduates are exempt from examinations required for entrance into the American Institute of Architects, and from the preliminary examination for the prize in Architecture of the American Academy at Rome. The Plym Fellowship in Architecture is awarded annually to a graduate of the department. This prize, which is awarded by competition, amounts to \$1,000 and provides for one year of travel abroad for the study of architecture.

The American Institute of Architects offers annually a medal to be awarded to the graduate of the department whose work throughout the four years has been adjudged the best. In making the award the scholarship in all work for the entire curriculum is considered.

The J. C. Llewellyn prize of fifty dollars is offered to the seniors in architectural engineering for the best solution of a given engineering problem.

The Scarab Medal in Architecture is awarded annually to a student of the Department. This prize is a bronze medal which is awarded by competition.

Students intending to take up the study of architecture should take free-hand and mechanical drawing and general history in high school.

### Equipment

The collections of rendered and working drawing, lantern slides, plates, photographs, casts, specimens of American woods, building materials, and appliances are noted under "Collections" on page 65. A Zeiss epidiascope is used for direct projection of photographs and colored plates, and a double electric lantern for projecting two pictures on the screen at once for comparative study. Geometrical and architectural models are lighted by a light properly adjusted for demonstration of the subjects of shades and shadows and conventional rendering. Wall space in the corridors of the department and in all drafting rooms has been prepared for exhibition purposes, and collections

of drawings are constantly displayed. The department occupies the fourth floor of Engineering Hall, and part of the third; its quarters include drafting rooms for undergraduate and graduate work, library, lecture rooms, and studios for free-hand drawing.

### CERAMIC ENGINEERING

This department offers courses in instruction relating to the fabrication of clay products, cement, and glass from the crude clays and rocks.

In addition to the fundamental engineering courses, work is offered in the physical and chemical principles of the production of silicate products, the winning and preparation of raw materials, their shaping, drying, and burning, or fusion, the compositions and application of the various glazes, enamels, and colors, the construction of the various machines, apparatus, kilns, and furnaces used in these industries.

Industrial cooperation and research are prosecuted, and a series of bulletins on ceramic subjects is being published.

#### Equipment

The ceramic laboratories contain apparatus for the testing of clays and the preparation of cements and glasses; machinery for grinding the raw materials, for shaping bricks, tiles, saggers, pottery and refractories; nine kilns and furnaces for calcining and fusing; pyrometers, potentiometers, electric furnaces, recording instruments, and all other accessories for exact scientific and technical work.

A library pertaining to the silicate industries is available; also sets of working drawings representing the construction of important plants.

### CIVIL ENGINEERING

The purpose of this department is to furnish a curriculum accompanied and illustrated by practise in the survey, design, and construction of public and other engineering works. While the instruction aims to be practical by giving the student information and practise applicable in his future professional work, the prime object is the development of the mental faculties. The power to acquire information and the ability to use it are held to be of greater value than so-called practical knowledge.

#### Equipment

This department has an equipment of compasses, engineers' transits, solar transits, levels (ordinary and precise), plane tables and sextants, as well as a collection of illustrations of structural materials.

The *cement laboratory* occupies a room in the Mechanical Engineering Laboratory, and is provided with slate tables, testing machines, molding machines, sieves, and sample barrels of hydraulic cement, varieties of sand, and other necessary materials.

The *road laboratory* occupies a room in the Mechanical Engineering Laboratory, and is provided with machines for testing the resistance of macadam material to impact and abrasion and for making the cementation test. The laboratory is also supplied with rattlers and other devices for testing paving material; and with equipment for testing oils, tars, and asphalts.

## ELECTRICAL ENGINEERING

This department provides a curriculum in the theory and application of electricity. The first two years of work are substantially the same as in the other engineering curriculums, including work in drafting room and shop, and instruction in the principles of mathematics and physics. In the third year a course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamos is followed in the fourth year by experiments in the operation of electrical machinery. Investigation of problems of power distribution is made in advanced laboratory and thesis work.

### Equipment

The 500-kilowatt power plant of the University supplies the electrical engineering laboratory with current for its operation.

The power equipment in the electrical engineering laboratory includes seventy-five direct current machines with a total capacity of 425 kilowatts, thirty alternating current machines with a total capacity of 325 kilowatts, and sixty transformers with a total capacity of 375 kilowatts. A 17-panel experimental switchboard affords distribution and control.

The instrument room contains standards for the calibration of commercial instruments of all types, two hundred and fifty portable instruments for experimental work, and a 240 ampere-hour storage battery. The graduate laboratory contains apparatus for research, including four oscillographs, one 2,000-cycle alternator, one 200,000-volt transformer, one 1,000-ampere direct current generator, and apparatus for high voltage direct current investigations. The photometer room contains apparatus for tests of the various light sources. Two special 100-line switchboards are connected with cables and apparatus for experiment in telephony. The equipment for electrometallurgical work includes one 30-kilowatt induction furnace, one 25-kilowatt arc furnace, two 30-kilowatt resistance furnaces, one 15-kilowatt vacuum furnace for melting, one 3-kilowatt vacuum furnace for annealing, and one 1.5-kilowatt muffle furnace.

## MECHANICAL ENGINEERING

The courses in mechanical engineering are planned to present the theory and practise of the generation and transmission of power, and of the design, construction, operation, and testing of machinery of all kinds. In the laboratories emphasis is given to the engineering and economic principles of machine construction and to the problems of scientific shop management.

### Equipment

*The Designing Rooms* are supplied with drawing tables, and with reference books, files of trade catalogs, gear charts, and collections of blue-prints. A collection of kinematic models, sectional steam specialties, lantern slides, and photographs is also available.

*The Mechanical Engineering Laboratory* is equipped with machines and testing instruments for instruction in steam engineering, gas power engineering, refrigeration, heating, and ventilation, including a 210-horsepower experimental boiler, equipped with chain-grate stoker, fuel economizer, and induced draft; a separately fired steam superheater; types of throttling, high speed automatic,

and Corliss steam engines; steam condensers; a compound two-stage air compressor; a large compound duplex steam pump; a Kerr steam turbine; a DeLaval turbo-pump; a 200,000-pound Lea water-flow; a 10-ton ammonia compression refrigerating machine; typical gas, gasoline, and oil engines; a 50-horsepower suction gas producer, house-heating boilers and furnaces; and apparatus for instruction in heating and ventilation and the mechanical equipment of buildings. The central heating and power plant contains types of boilers, stokers, pumps, and engines in commercial service.

The *Shop Laboratories* are provided with machinery and apparatus to illustrate the processes of the manufacture of machinery. The laboratories include the *Wood Shop* with an equipment of benches, lathes, machinery, and small tools needed in pattern construction; the *Foundry* equipped with cupola, brass furnaces, core ovens, molding machines, and facilities for bench and floor molding; the *Forge Shop* equipped with forges, anvils and small tools, a steam hammer, a power-driven punch and shear, and with gas and electric furnaces; and the *Machine Shop* with an equipment of lathes, planers, shapers, milling machines, grinders, boring mills, drill presses, and with typical small tools and fixtures used in manufacturing.

### MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of students of engineering.

The *Laboratory of Applied Mechanics* comprises the materials testing laboratory and the hydraulics laboratory. The equipment of the *materials testing laboratory* includes testing machines and apparatus for making physical test of materials of construction, such as tension, compression, flexure, shearing, torsion, hardness, and impact tests, and tests under repeated load. The laboratory contains machines of capacity for testing full size structural and machine members. Among these is a universal machine of six hundred thousand pounds capacity. The *hydraulics laboratory* has facilities for furnishing water under a range of pressures and volumes. There is an equipment of devices for measuring and recording the flow of water, including measuring pits, water meters, weir channels, nozzles, pitometer, and Venturi meters. In the equipment are pumps, a standpipe, water motors, and a turbine water wheel for testing purposes. A supply of pressure gauges, weighing scales, and other auxiliary apparatus is provided.

### MINING ENGINEERING

The department of mining engineering offers courses of instruction in mining and metallurgy to train men for the various phases of the mineral industry.

The work of the department adds to the preliminary courses in mathematics, languages, chemistry, physics, geology, and general engineering, specialized work in mine surveying, mining methods, prospecting, mine examination and valuation, ventilation, mining machinery, coal washing and ore concentration, metallurgy, utilization of fuels, administration and organization of mines, mining law, and the design of mining and metallurgical structures.

In addition to its work of instruction, the department concerns itself with the development and dissemination of scientific facts of service in improving the practise of mining, with reference to efficiency in operation, the security of life in the mines, and the conservation of the mineral resources of the State.

### Equipment

The drawing rooms contain the catalogs of the manufacturers of mining machinery with a complete card index, the standard reference books on mine drafting, models of mine structures, and a collection of blue-prints and drawings of mine structures.

The mine-gas and safety-lamp laboratory contains safety lamps of different types, electric and magnetic locking appliances, a photometer, a dark room for photometric work, Ryan, Oldham, and Hailwood safety-lamp testing apparatus, appliances for gas and dust analysis and explosibility tests, and a Bacharach hydro volume and pressure recorder.

The coal washing and ore dressing laboratory contains for crushing, rolls, gyratory and jaw crushers, and a 500-pound 3-stamp battery; for screening and sizing, trommels, shaking and vibrating screens, and classifiers; for concentrating and cleaning, pan, piston and pulsating jigs, bumping table, vanner, concentrating table, and slimer. These machines can handle from 3 to 5 tons of coal and one ton of ore an hour. There are also a complete sampling and drying equipment, a cyanide testing plant, a Huff electrostatic machine, a flotation unit, and other appliances used for preliminary testing. Adjoining this laboratory is a chemical assay laboratory equipped for the analytical work required in connection with coal washing and ore concentration.

The explosives and drilling laboratory contains types of rock and coal drills, an air meter, a diamond drill, chain and puncher, coal cutters, and a complete outfit for demonstrating the use of explosives.

### MINE RESCUE STATION AND LABORATORIES

Cooperating with the department of mining engineering and with the State Geological Survey, the Federal Government in 1909 established at the University a mine rescue station in charge of a resident mining engineer. The purpose of the station was to interest all connected with the mining industry in modern appliances and breathing and resuscitation apparatus as part of the normal equipment of mines. At the station mine bosses and others were trained in the use of such apparatus, this service being rendered freely to all who desired the benefits thereof.

A direct outcome of the cooperative rescue station has been the establishment of a comprehensive mine rescue service by the State of Illinois. This state service has rendered unnecessary the maintenance of the cooperative rescue station in Urbana. The station is now maintained by the University for the training of students, but the Bureau of Mines keeps certain apparatus on exhibition.

The Cooperative Investigation of Illinois mining conditions is another outgrowth of the mine rescue station. This cooperation between the University of Illinois, the Illinois State Geological Survey, and the United States Bureau of Mines has for the past four years carried on an investigation of the coal resources and the mining practise in the state.

A laboratory has been maintained for the study of mine dusts and mine gases which is also available for the use of mining classes in the University. The Bureau of Mines has stationed in Urbana two resident mining engineers, and a chemist.

**MUNICIPAL AND SANITARY ENGINEERING**

This curriculum is designed to train students for the duties of the engineer employed on the design, construction, and operation of public works and public utilities, and for general engineering work.

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering curriculum. Chemistry and bacteriology of water supply and sewage disposal are given; and instruction in mechanical and electrical engineering in the generation and transmission of power.

**PHYSICS**

The department of physics occupies the Laboratory of Physics. This building supplies facilities and equipment for instruction and investigation in physics. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents are available in all parts of the building. There is a collection of over 4,000 pieces of apparatus, and only a small part of the equipment is antiquated. New investigations can usually be started with the apparatus on hand. There are two workshops, one for advanced students and instructors, and one for the mechanicians of the department. The students' shop is equipped with lathes, drill press, and bench tools. The mechanicians' shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University library contains sets of journals of physics and the related sciences in English, French, and German. The recent volumes of the physical journals, together with a collection of text-books, encyclopedias, dictionaries, and other reference books, are in the special library of the Laboratory.

**RAILWAY ENGINEERING\***

The department of railway engineering is organized to train students for service in the technical departments of railways. It offers curriculums in railway civil engineering, railway electrical engineering, and railway mechanical engineering, all three of which are substantially the same as the corresponding civil, electrical, and mechanical engineering curriculums to the middle of the third year, after which is given in each course a group of subjects relating to the technical problems of steam or electric railways. The curriculums in railway civil and railway mechanical engineering are designed for those who wish to enter steam railway service in the engineering and motive power departments respectively, while the curriculum in railway electrical engineering is intended for those who will serve on electric railways or in the electrical departments of steam roads. The special subjects of the curriculum in railway civil engineering concern the location, design, construction, and maintenance of railway track and equipment, and the design of railway structures. The courses in railway electrical engineering deal with the design and construction of electric railway equipment, the operation and performance of electric cars and locomotives, and with the problems which arise in the electrification of steam lines. The curriculum in railway mechanical engineering adds to the fundamentals of the general mechanical engineering curriculum special railway courses on the design of locomotives and cars, the resistance of trains, the performance and tests of locomotives, and tests of railway equipment.

\*See also School of Railway Engineering and Administration, page 205.

### Equipment

A locomotive testing plant, equipped from the original designs of the department, occupies a building forty by one hundred fifteen feet. The plant is devoted exclusively to making tests to determine the performance of locomotives. The locomotives tested are furnished by certain western railroad systems under an arrangement which insures the maintenance in the plant of a locomotive of latest design.

The department owns and operates, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is equipped for making train resistance and locomotive performance tests, and during the last fifteen years has been in frequent operation in carrying on resistance and tonnage rating tests on the Illinois Central Railroad and on several eastern roads.

For work on electric roads the department owns also an electric test car, of the interurban type, designed and built for the University. It is equipped with four 50-horse-power direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed, acceleration, and the other data needed in road tests. Through the courtesy of the Illinois Traction System this car is operated on its lines, which enter the campus of the University.

The department laboratory equipment includes a drop-testing machine and a brake-shoe testing machine, both constructed in accordance with the standards of the Master Car Builders Association. The drop-testing machine is designed for use in testing the strength of railroad rails, car axles, car couplers, and draft gears; and may be used in studies of the physical properties of structural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students of the railway department.

Three steam roads—the Illinois Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the Wabash railroads—and two electric interurban roads—the Illinois Traction System and the Kankakee and Urbana railway—enter Champaign and Urbana. The department is afforded opportunities for practical road tests and field work. The division shops of the C., C., C. & St. L. railroad, located at Urbana, provide opportunity for similar work.

### APPROVED NON-TECHNICAL ELECTIVES

The following is a list of approved non-technical electives for students in the College of Engineering. In general, prerequisites must be observed.

Accountancy 10; Astronomy 3, 7, 8, 14, 15; Chemistry 16, 5a or 13a, 10b, 6, 7, 8, 31, 35, 65, 66, 69, 77, 78; Economics 1, 2, 3, 10, 12a-12b, 21, 25a-25b, 41; Education 1, 2, 16, 25, 41; English, any intermediate or advanced courses; French, any advanced courses; Geology 2, 5a, 13a, 13b, 14, 24; (for students in mining any course in geology for which the student has prerequisite); German, any third or fourth year courses; History 3a-3b; Italian 2a-2b; Mathematics 10, 16-17, 19, 21, 23, 27-28; Philosophy 1, 17; Physics 15, 16, 17, 20, 22, 23, 24, 25, 30, 31a-31b; Political Science 1, 3, 4; Psychology 1, 2, 3, 4; Rhetoric 17; Sociology 1, 3; Spanish 3a-3b; 4a-4b.

**SUMMER READING**

All engineering students not graduates of a literary college are required to complete prescribed courses of reading of a non-professional character during the summer vacations following the freshman and sophomore years. The purpose of the summer reading is to increase the acquaintance of the student with literature, history, and general science, to develop in him a taste for such reading, and to impress him with the importance of such knowledge not only as a source of individual enjoyment, but as an aid in social and business relations.

A circular on summer reading is issued, containing a list of books from which the student may choose. The books have been selected for their value in general training, but an attempt has been made to include only readable and attractive works. A statement of the books read during the summer is required at the beginning of the next college year.

**GENERAL ENGINEERING LECTURES FOR FRESHMEN**

One general lecture, sufficiently popular in character to interest and inspire young students, will be given each week. All freshman engineering students are required to attend this lecture.

**TRIPS OF INSPECTION**

Students in the College of Engineering are required to make a trip of inspection during their senior year. Such trips supply an opportunity to inspect the work of industrial establishments and of engineering enterprises. They usually occupy from three to four days, and are taken during term time, under the supervision of University authorities. They involve an expense from \$15 to \$25 to each student. For the year 1916-17, the trips will occur on November 27-29, 1916.

**CURRICULUMS AND DEGREES**

The curriculums leading to the degree of Bachelor of Science in the College of Engineering, as scheduled for the year 1915-16, are given herewith in full. Each of the eleven curriculums given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural, ceramic, civil, electrical, mechanical, mining, municipal and sanitary, or railway engineering may receive the degree of an allied curriculum upon the completion of from thirty to thirty-six semester hours work approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the College of Liberal Arts and Sciences of the University of Illinois, or of any college of equal standing, whose mathematical training includes the calculus, who has had an acceptable course in physics, and sufficient training in mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering upon the completion of sixty-eight credit hours of work in engineering under the direction of the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.

**RHETORIC PREREQUISITE FOR JUNIOR STANDING**

The University Senate has approved the following requirements in the subject of rhetoric:

1. Rhetoric 1 and 2 shall hereafter be a prerequisite for junior standing in the College of Engineering, and no student in this College shall be permitted to register in more than eight hours of prescribed junior work without having passed or being registered in Rhetoric 1 or 2.
2. Any student in this College whose written work shows that he is unable to use good English shall be reported by his instructor to a standing committee of the College, which committee shall have authority to direct the student to take as a prerequisite for graduation such additional work in rhetoric as may be prescribed by the department of English.

**CURRICULUMS IN ENGINEERING**

The several engineering curriculums are in process of transition between a former schedule followed by the classes entering prior to the year 1914-15, and a new schedule, effective for the freshman class of that year and subsequent classes.

The outlines which follow show the work of each year in the several curriculums as taught during 1915-16. They do not show either the old or the new curriculum as a whole. The "First Year" as here scheduled is for freshmen; and the "Second Year," "Third Year," and "Fourth Year," respectively, for regular sophomores, juniors, and seniors; but these schedules must not be used for checking up on a student's previous work in his course or in planning the work of subsequent years. For such check or planning consult with the Assistant Dean of the College.

**Curriculum in Architecture****FIRST YEAR**

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Arch. 31 <sup>2</sup> —Arch. and Freehand Drawing..	4	Arch. 32—Arch. and Freehand Drawing..	4
Engineering lecture.....	0	Chem. 1a <sup>3</sup> or 1b—Inorganic Chemistry 3 or 4	0
G. E. D. 2—Descriptive Geometry.....	4	Engineering lecture.....	0
Math. 2—Advanced Algebra.....	3	Mil. 1—Drill Regulations.....	1
Math. 4—Trigonometry .....	2	Mil. 2b—Military Drill .....	1
Mil. 2a—Military Drill .....	1	Phys. Tr. 2—Gymnasium .....	1
Phys. Tr. 1 and 1a—Gymnasium and Hy- giene .....	1	Rhet. 2—Rhetoric and Themes .....	3
Rhet. 1—Rhetoric and Themes.....	3	T. & A. M. 14—Elem. Mechanics.....	4
Total .....	18	Total .....	17 or 18

Summer Reading, 50 points

**SECOND YEAR**

Arch. 13—History of Architecture.....	2	Arch. 14—History of Architecture.....	2
Arch. 23—Freehand Drawing.....	2	Arch. 24—Freehand Drawing.....	2
Arch. 33—Design .....	3	Arch. 34—Design .....	3
Arch. 43—Working Drawings.....	3	Arch. 44—Working Drawings.....	3
Mil. 2c—Military Drill .....	1	Mil. 2d—Military Drill .....	1
Phys. 9a—Physics Lectures.....	2	Phys. 9b—Physics Lectures.....	2
Phys. 10a—Physics Laboratory.....	2	Phys. 10b—Physics Laboratory.....	2
T. & A. M. 15—Strength of Materials... .	3	T. & A. M. 16—Strength of Materials... .	3
Total .....	18	Total .....	18

Summer Reading, 50 points

<sup>1</sup>Semester hours. For definition see page 259.

<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

<sup>3</sup>Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

## THIRD YEAR

Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
Arch. 25—Freehand Drawing.....	2	Arch. 26—Freehand Drawing.....	2
Arch. 35—Design .....	5	Arch. 36—Design .....	5
Arch. 45—Graphic Statics.....	3	Arch. 46—Graphic Statics.....	3
Arch. 55—Building Sanitation.....	1	Arch. 66—Theory of Architecture.....	1
Arch. 65—Theory of Architecture.....	1	E. E. 90—Building Illumination.....	1
French or German.....	4	French or German.....	4
Total .....	18	Total .....	18

## FOURTH YEAR

Arch. 27—Freehand Drawing.....	2	Arch. 28—Freehand Drawing.....	2
Arch. 37—Design .....	7	Arch. 38—Advanced Design or Thesis.....	7
Arch. 67—Theory of Proportion.....	2	Arch. 60—Special lectures.....	1
Elective .....	2	Arch. 68—Specifications .....	3
Inspection trip.....	0	*Non-technical elective.....	3
M. E. 25—Heating and Ventilation.....	2		
*Non-technical elective.....	3		
Total .....	18	Total .....	16

## Curriculum in Architectural Engineering as Taught in 1915-16

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4	3	Chem. 4—Qualitative Analysis.....	4
Engineering lecture .....	0	Engineering lecture.....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Trigonometry .....	2	Mil. 1—Theoretical Instruction.....	1
Mil. 2a—Practical Instruction.....	1	Mil. 2b—Practical Instruction .....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	17 or 18	Total .....	19
Summer Reading, 50 points			

## SECOND YEAR FOR THE CLASS OF 1918

Arch. 13—History of Architecture.....	2	Arch. 14—History of Architecture.....	2
A. E. 33—Arch. and Freehand Drawing..	3	A. E. 34—Design .....	3
A. E. 43—Working Drawings.....	2	A. E. 44—Working Drawings.....	2
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures .....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
T. & A. M. 20—Analytical Mechanics.....	3	T. & A. M. 26—Analytical Mechanics and Hydraulics .....	4
Total .....	18	Total .....	18
Summer Reading, 50 points			

## THIRD YEAR FOR THE CLASS OF 1917

Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
A. E. 45—Graphic Statics.....	3	A. E. 46—Graphic Statics.....	3
Chem. 1a or 1b—Inorganic Chem.....	4	Chem. 4—Qualitative Analysis.....	4
Non-technical elective .....	2	Non-technical elective .....	2
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
T. & A. M. 25—Resistance of Materials..	4	T. & A. M. 26—Analytic Mechanics and Hydraulics .....	4
Total .....	18	Total .....	18
Summer Reading, 50 points			

## FOURTH YEAR FOR THE CLASS OF 1916

A. E. 47—Architectural Engineering.....	5	A. E. 48—Architectural Engineering.....	5
A. E. 57—Fireproof Construction.....	2	A. E. 58—Fireproof Construction.....	2
Inspection Trip.....	0	A. E. 68—Estimates and Specifications..	4
M. E. 23—Mech. Equipment of Buildings.	5	E. E. 92—Lighting and Wiring.....	2
Non-technical elective .....	3	Non-technical elective .....	3
Total .....	15	Total .....	16

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

\*Any approved non-technical course requiring sophomore standing. See printed list of approved non-technical electives, page 164.

## Revised Curriculum in Ceramic Engineering

## FIRST YEAR

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4		Chem. 4—Qualitative Analysis.....	4
Engineering lecture .....	0	Engineering lecture .....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill .....	1
Phys. Tr. 1 and 1a—Gymnasium and Hy- giene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3

Total ..... 17 or 18 Total ..... 19

Summer Reading, 50 points

## SECOND YEAR

Chem. 5a—Quantative Analysis.....	5	Cer. 1—Ceramic Materials.....	3
Math. 7—Differential Calculus.....	5	Che. 5b—Quantative Analysis.....	5
Min. 3—Mining Principles.....	2	Math. 9—Integral Calculus.....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill .....	1
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
		T. & A. M. 20—Analytical Mechanics.....	3

Total ..... 18 Total ..... 19

Summer Reading, 50 points

## THIRD YEAR

Cer. 2—Winning and Preparation of Clays 3		Cer. 5—Ceramic Bodies.....	5
Cer. 3—Industrial Calculations.....	3	Cer. 10—Cements .....	3
Chem. 65—Gas and Fuel Analysis.....	2	Cer. 12—Designing and Shaping.....	3
Language .....	4	C. E. 76—Surveying .....	2
T. & A. M. 21—Analytical Mechanics... 2		Language .....	4
T. & A. M. 25—Resistance of Materials. 4			

Total ..... 18 Total ..... 17

## FOURTH YEAR

Cer. 4—Drying and Burning.....	4	Cer. 8—Glass .....	2
Cer. 6—Glazes .....	5	Cer. 9—Ceramic Construction.....	4
Cer. 17—Silicates .....	3	Ceramic thesis or technical elective.....	3
Geol. 13a—Engineering Geology.....	3	Geol. 13b—Engineering Geology.....	3
Non-technical elective .....	3	M. E. 62—Mech. Eng. Laboratory.....	3

Total ..... 18 Total ..... 15

## Curriculum in Civil Engineering as Taught in 1915-16

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4		Chem. 4—Inorganic Chemistry.....	4
Engineering lecture .....	0	Engineering lecture .....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill .....	1
Phys. Tr. 1 and 1a—Gymnasium and Hy- giene .....	1	Phys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3

Total ..... 17 or 18 Total ..... 19

Summer Reading, 50 points

## SECOND YEAR FOR THE CLASS OF 1918

C. E. 27—Plane Surveying .....	3	C. E. 28—Higher Surveying .....	3
Elective .....	2	Elective .....	2
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill .....	1
Phys. 1a—Physics Lecture.....	3	Phys. 1b—Physics Lecture .....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory .....	2
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
		T. & A. M. 20—Analytical Mechanics.....	3

Total ..... 19 Total ..... 19

Summer Reading, 50 points

<sup>1</sup>Semester hours. For definition see page 259.

<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

THIRD YEAR FOR THE CLASS OF 1917

C. E. 51—Railroad Surveying.....	5	C. E. 52—Roads and Pavements.....	3
M. E. 1—Steam Engines and Boilers.....	3	C. E. 60—Structural Stresses.....	4
Non-technical elective .....	3	C. E. 62—Structural Details.....	2
T. & A. M. 21—Analytical Mechanics.....	2	C. E. 70—Seminar .....	1
T. & A. M. 29—Resistance of Materials 5		Non-technical elective .....	3
		T. & A. M. 10—Hydraulics.....	3
Total .....	18	Total .....	16

FOURTH YEAR FOR THE CLASS OF 1916

I. General Civil Engineering Option

C. E. 77—Masonry Construction .....	4	C. E. 80—Contracts and Specifications... 2	
C. E. 79—Cement Laboratory.....	1	C. E. 84—Elementary Electrical Engineering .....	2
C. E. 81—Theory of Reinforced Concrete 2		E. L. 64—Electrical Engineering Laboratory .....	1
C. E. 83—Steel Bridge Design.....	3	M. & S. E. 3—Sewerage.....	3
Inspection trip .....	0	Non-technical elective.....	3
M. & S. E. 2—Water Supply Engineering 4		Technical elective .....	5
Technical elective .....	4		
Total .....	18	Total .....	16

II. Structural Engineering Option

C. E. 77—Masonry Construction .....	4	C. E. 80—Contracts and Specifications... 2	
C. E. 79—Cement Laboratory.....	1	C. E. 82—Reinforced Concrete Design.... 4	
C. E. 81—Theory of Reinforced Concrete 2		C. E. 88—Steel Building Design..... 3	
C. E. 85—Steel Bridge Design.....	5	M. & S. E. 3—Sewerage.....	3
C. E. 87—Advanced Bridge Analysis.... 2		Non-technical elective.....	3
Inspection trip .....	0	Technical elective .....	2
M. & S. E. 2—Water Supply Engineering 4			
Total .....	18	Total .....	16

III. Highway Engineering Option

C. E. 77—Masonry Construction .....	4	C. E. 80—Contracts and Specifications.. 2	
C. E. 79—Cement Laboratory.....	1	C. E. 92—Concrete Bridges and Culverts. 2	
C. E. 81—Theory of Reinforced Concrete 2		C. E. 94—Highway Administration..... 3	
C. E. 91—Highway Bridge Design..... 4		C. E. 96—Road Laboratory..... 2	
C. E. 93—Road Construction..... 3		Chem. 73—Asphalt, Tar, etc..... 2	
Inspection trip .....	0	Non-technical elective.....	3
M. & S. E. 2—Water Supply Engineering 4		Technical elective .....	2
Total .....	18	Total .....	16

Technical Electives

C. E. 83—Steel Bridge Design.....	3	C. E. 76—General Surveying.....	2
C. E. 85—Steel Bridge Design.....	5	C. E. 82—Reinforced Concrete Design... 4	
C. E. 87—Advanced Bridge Analysis.... 2		C. E. 84—Concrete Buildings..... 4	
C. E. 89—Hydro-Economics .....	2	C. E. 88—Steel Building Design..... 3	
C. E. 91—Highway Bridge Design..... 4		C. E. 90—Hydro-Economics .....	2
C. E. 93—Road Construction..... 3		C. E. 92—Concrete Bridges and Culverts. 2	
C. E. 97—Thesis* .....	1	C. E. 94—Highway Administration .....	3
Min. 64—Mechanical Engineering of Mines 3		C. E. 96—Road Laboratory .....	2
R. E. 33—Economy of Railway Location. 4		C. E. 98—Thesis* .....	2 or 3
		Chem. 73—Asphalts, Tar, etc..... 2	
		E. E. 4—Electrical Engineering .....	2
		E. E. 64—Electrical Engineering Labor- atory .....	1
		Min. 1—Earth and Rock Excavation..... 3	
		M. & S. E. 3—Sewerage.....	3
		M. & S. E. 9—Hydraulic Design and Con- struction .....	2
		R. E. 31—Railway Yards and Terminals. 3	

*Curriculum in Electrical Engineering as Taught in 1915-16*

FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER

Hours<sup>1</sup>

			SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4		Chem. 4—Qualitative Analysis.....		4
Engineering lecture.....	0	Engineering lecture.....		0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....		4
Math. 2—Algebra .....	3	Math. 6—Analytic Geometry.....		5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....		1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....		1
P. T. 1 and 1a—Gymnasium and Hygiene 1		P. T. 2—Gymnasium.....		1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....		3
Total .....	17 or 18	Total .....		19
		Summer Reading, 50 points		

<sup>1</sup>Semester hours. For definition see page 259.

<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

\*Only students having high grades may elect a thesis.

*The College of Engineering*

## SECOND YEAR FOR THE CLASS OF 1918

Language	4	Chem. 1a—Inorganic Chemistry	4
Math. 7—Differential Calculus	5	Language	4
M. E. 81—Machine Work	3	Math. 9—Integral Calculus	3
Mil. 2c—Military Drill	1	Mil. 2d—Military Drill	1
Phys. 1a—Physics Lectures	3	Phys. 1b—Physics Lectures	2
Phys. 3a—Physics Laboratory	2	Phys. 3b—Physics Laboratory	2
Total	18	T. A. M. 20—Analytical Mechanics	3
		Total	19
		Summer Reading, 50 points	

## THIRD YEAR FOR THE CLASS OF 1917

Chem. 4—Qualitative Analysis	4	E. E. 26—Alternating Currents	4
E. E. 25—Direct Current Apparatus	4	E. E. 76—Electrical Engineering Laboratory	2
E. E. 75—Electrical Engineering Laboratory	2	M. E. 2—Steam Engineering	3
Math. 9a—Integral Calculus	2	Non-technical elective	3
Phys. 4a—Electrical and Magnetic Measurement	2	Phys. 4b—Electrical and Magnetic Measurement	2
T. A. M. 25—Resistance of Materials	4	T. & A. M. 26—Analytical Mechanics and Hydraulics	4
Total	18	Total	18
		Summer Reading, 50 points	

## FOURTH YEAR FOR THE CLASS OF 1916

E. E. 35—Alternating Current Apparatus	4	E. E. 36—Alternating Current Apparatus	4
E. E. 55—Electrical Design	2	E. E. 56—Electrical Design	4
E. E. 85—Electrical Engineering Laboratory	2	E. E. 86—Electrical Engineering Laboratory	2
E. E. 95—Seminar	1	E. E. 96—Seminar	1
M. E. 11—Thermodynamics	3	E. E. 98—Thesis* or elective	3
M. E. 61—Power Measurement	2	Non-technical elective	3
Non-technical elective	3		
Inspection trip	0		
Total	17	Total	17
		Summer Reading, 50 points	

## Curriculum in Mechanical Engineering as Taught in 1915-16

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry	3 or 4	Chem. 4—Qualitative Analysis	4
Engineering lecture	0	Engineering lecture	0
G. E. D. 1—Elements of Drafting	4	G. E. D. 2—Descriptive Geometry	4
Math. 2—Algebra	3	Math. 6—Analytical Geometry	5
Math. 4—Trigonometry	2	Mil. 1—Drill Regulations	1
Mil. 2a—Military Drill	1	Mil. 2b—Military Drill	1
P. T. 1 and 1a—Gymnasium and Hygiene	1	P. T. 2—Gymnasium	1
Rhet. 1—Rhetoric and Themes	3	Rhet. 2—Rhetoric and Themes	3
Total	17 or 18	Total	19
		Summer Reading, 50 points	

## SECOND YEAR FOR THE CLASS OF 1918

Math. 7—Differential Calculus	5	Math. 9—Integral Calculus	3
M. E. 75 & 77—Forge and Foundry, or		M. E. 75 & 77—Forge and Foundry or	
M. E. 79—Pattern Work	3	M. E. 79—Pattern work	3
Mil. 2c—Military Drill	1	Mil. 2d—Military Drill	1
Phys. 1a—Physics Lectures	3	Phys. 1b—Physics Lectures	2
Phys. 3a—Physics Laboratory	2	Phys. 3b—Physics Laboratory	2
Rhet. 1—Rhetoric and Themes	3	Rhet. 2—Rhetoric and Themes	3
Total	17	T. & A. M. 20—Analytical Mechanics	3
		Summer Reading, 50 points	

## THIRD YEAR FOR THE CLASS OF 1917

Chem. 1a or 1b—Inorganic Chemistry	3 or 4	Chem. 16—Engineering Chemistry	3
Math. 9a—Integral Mechanics	2	M. E. 12—Thermodynamics	5
Non-technical elective	3	M. E. 30—Mechanics of Machinery	5
T. & A. M. 27—Analytical Mechanics	3	M. E. 64—Power Measurement	3
T. & A. M. 29—Resistance of Materials	5		
Total	16 or 17	Total	16
		Summer Reading, 50 points	

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

\*Only students having high grades may elect a thesis.

## FOURTH YEAR FOR THE CLASS OF 1916

E. E. 11—Direct Current Apparatus.....	3	E. E. 12—Alternating Current Apparatus	3
E. E. 61—Direct Current Laboratory.....	1	E. E. 62—Alternating Current Laboratory	1
Inspection trip.....	0	M. E. 26—Heating and Ventilation.....	3
M. E. 15—Gas Power Engineering or		M. E. 32—Power Transmission.....	3
M. E. 37—Principles of Management.....	3	M. E. 44—Engineering Design or	
M. E. 43—Engineering Design.....	5	M. E. 66—Power Laboratory.....	2
M. E. 65—Power Laboratory.....	3	M. E. 52—Power Plant Design or	
Non-technical elective.....	3	M. E. 54—Industrial Plant Design.....	3
Total .....	18	Total .....	15

## Curriculum in Mining Engineering as Taught in 1915-16

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4	3 or 4	Chem. 4—Qualitative Analysis.....	4
Engineering lecture .....	0	Engineering lecture.....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
P. T. 1 and 1a—Gymnasium and Hygiene 1	1	P. T. 2—Gymnasium .....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	17 or 18	Total .....	19
		Summer Reading, 50 points	

## SECOND YEAR FOR THE CLASS OF 1918

Geol. 13a—Engineering Geology.....	3	Geol. 13b—Engineering Geology.....	3
Language .....	4	Language .....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Physics 1a—Physics Lectures.....	3	Physics 1b—Physics Lectures.....	2
Physics 3a—Physics Laboratory.....	2	Physics 3b—Physics Laboratory.....	2
T. & A. M. 20—Analytical Mechanics....	3	T. & A. M. 20—Analytical Mechanics....	3
Total .....	18	Total .....	18
		Summer Reading, 50 points	

## THIRD YEAR FOR THE CLASS OF 1917

Chem. 5b—Quantitative Analysis.....	4	C. E. 58—Graphic Statics.....	2
C. E. 27—Surveying .....	3	E. E. 4—Elementary Electrical Engineering .....	2
Geol. 13a—Engineering Geology.....	3	E. E. 64—Electrical Engineering Laboratory .....	1
M. E. 1—Steam Engineering.....	3	Geol. 13b—Engineering Geology.....	3
T. & A. M.—Resistance of Materials....	4	Mining 4—Mining Methods.....	2
		Mining 6—Mechanical Engineering of Mines .....	2
Total .....	17	T. & A. M. 26—Analytical Mechanics and Hydraulics .....	4
		Total .....	16

## FOURTH YEAR FOR THE CLASS OF 1916

## I. Coal Mining Option

Chem. 7—Metallurgy .....	3	Min. 8—Mine Law, Administration, and Accounts .....	3
Chem. 65—Technical Gas and Fuel Analysis .....	2	Min. 13—Utilization of Coal.....	2
Inspection trip.....	0	Min. 42—Coal Plant Design.....	2
Min. 5—Mine Ventilation.....	3	Min. 62—Mine Surveying.....	3
Min. 9—Coal and Ore Preparation.....	3	Min. 64—Coal Mine Laboratory.....	3
Min. 41—Principles of Coal Plant Design	3	Min. 68—Mine Topography.....	1
Non-technical elective.....	3	Min. 90—Journal Meeting .....	1
Total .....	17	Non-technical elective.....	3
		Total .....	18.

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

*II. Ore Mining Option*

Chem. 7—Metallurgy .....	3	Geol. 2—Economic Geology .....	3
Chem. 69—Metallurgical Laboratory and Assaying .....	2	Min. 8—Mine Law, Administration, and Accounts .....	3
Inspection trip .....	0	Min. 44—Ore Plant Design .....	2
Min. 15—Principles of Mine Ventilation .....	1	Min. 62—Mine Surveying .....	3
Min. 19—Ore and Coal Preparation .....	3	Min. 66—Ore Concentration Laboratory .....	3
Min. 21—Mine Examination and Valuation .....	2	Min. 90—Journal Meeting .....	1
Min. 43—Principles of Ore Plant Design .....	3	Non-technical elective .....	3
Non-technical elective .....	3		
Total .....	17	Total .....	18

*III. Metallurgical Option*

Chem. 7—Metallurgy .....	3	Chem. 7a—Non-ferrous Metallurgy .....	3
Chem. 65—Technical Gas and Fuel Analysis .....	2	Chem. 70—Metallurgical Laboratory .....	3
Chem. 69—Metallurgical Laboratory and Assaying .....	2	Min. 8—Mine Law, Administration, and Accounts .....	3
Inspection trip .....	0	Min. 46—Mill and Smelter Design .....	2
Min. 17—Problems .....	1	Min. 66—Ore Concentration Laboratory .....	3
Min. 19—Ore and Coal Preparation .....	3	Min. 90—Journal Meeting .....	1
Min. 45—Mill and Smelter Design .....	3	Non-technical elective .....	3
Non-technical elective .....	3		
Total .....	17	Total .....	18

**Curriculum in Municipal and Sanitary Engineering as Taught in 1915-16****FIRST YEAR FOR THE CLASS OF 1919**

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4	3 or 4	Chem. 4—Qualitative Analysis .....	4
Engineering lecture .....	0	Engineering lecture .....	0
G. E. D. 1—Elements of Drafting .....	4	G. E. D. 2—Descriptive Geometry .....	4
Math. 2—Advanced Algebra .....	3	Math. 6—Analytic Geometry .....	5
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations .....	1
Mil. 2a—Military Drill .....	1	Mil. 2b—Military Drill .....	1
P. T. 1 and 1a—Gymnasium and Hygiene 1	1	P. T. 2—Gymnasium .....	1
Rhet. 1—Rhetoric and Themes .....	3	Rhet. 2—Rhetoric and Themes .....	3
Total .....	17 or 18	Total .....	19
		Summer Reading, 50 points	

**SECOND YEAR FOR THE CLASS OF 1918**

C. E. 27—Plane Surveying .....	3	C. E. 28—Higher Surveying .....	3
Math. 7—Differential Calculus .....	5	Math. 9—Integral Calculus .....	3
Mil. 2c—Military Drill .....	1	Mil. 2d—Military Drill .....	1
Phys. 1a—Physics Lectures .....	3	Phys. 1b—Physics Lectures .....	2
Phys. 3a—Physics Laboratory .....	2	Phys. 3b—Physics Laboratory .....	2
Rhet. 1—Rhetoric and Themes .....	3	Rhet. 2—Rhetoric and Themes .....	3
T. & A. M. 20—Analytical Mechanics .....	3	T. & A. M. 20—Analytical Mechanics .....	3
Total .....	17	Total .....	17
		Summer Reading, 50 points	

**THIRD YEAR FOR THE CLASS OF 1917**

Botany 6—Bacteriology .....	2	Chem. 2a, 10b—Qualitative and Water Analysis .....	5
Chem. 1a or 1b—Inorganic Chemistry 3 or 4	3	C. E. 60—Structural Stresses .....	4
C. E. 53—Railroad Surveying .....	3	C. E. 52—Roads and Pavements .....	3
Non-technical elective .....	2	M. E. 2—Steam Engineering .....	3
T. & A. M. 21—Analytical Mechanics .....	2	T. & A. M. 10—Hydraulics .....	3
T. & A. M. 29—Resistance of Materials .....	5		
Total .....	17 or 18	Total .....	18

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

## FOURTH YEAR FOR THE CLASS OF 1916

C. E. 77—Masonry Construction.....	4	C. E. 62—Structural Details.....	2
C. E. 79—Cement Laboratory.....	1	C. E. 80—Contracts and Specifications.....	2
C. E. 81—Reinforced Concrete.....	2	E. E. 4—Elementary Electrical Engineering.....	2
Inspection trip.....	0	E. E. 64—Electrical Engineering Laboratory.....	1
M. E. 61—Steam Laboratory.....	2	M. & S. E. 3—Sewerage.....	3
M. & S. E. 2—Water Supply Engineering 4		M. & S. E. 6b—Water Purification and Sewage Disposal.....	2
M. & S. E. 6a—Water Purification and Sewage Disposal.....	3	M. & S. E. 9—Hydraulic Design and Construction.....	2
Total .....	16	M. & S. E. 99—Thesis or approved elective .....	3
		Total .....	17

## Curriculum in Railway Civil Engineering as Taught in 1915-16

## FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry 3 or 4	3 or 4	Chem. 4—Qualitative Analysis.....	4
Engineering lecture.....	0	Engineering lecture.....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Plane Trigonometry.....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
P. T. 1 and 1a—Gymnasium and Hygiene 1	1	P. T. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	17 or 18	Total .....	19
		Summer Reading, 50 points	

## SECOND YEAR FOR THE CLASS OF 1918

C. E. 27—Plane Surveying.....	3	C. E. 28—Higher Surveying.....	3
Language .....	4	Language .....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
T. & A. M. 20—Analytical Mechanics....	3	T. & A. M. 20—Analytical Mechanics....	3
Total .....	18	Total .....	18
		Summer Reading, 50 points	

## THIRD YEAR FOR THE CLASS OF 1917

C. E. 51—Railroad Surveying.....	5	C. E. 60—Structural Stresses.....	4
R. E. 25—Railway Development.....	3	R. E. 31—Railway Yards and Terminals.....	3
Rhet. 1—Rhetoric and Themes.....	3	R. E. 34—Railway Maintenance.....	4
T. & A. M. 21—Analytical Mechanics....	2	Rhet. 2—Rhetoric and Themes.....	3
T. & A. M. 29—Resistance of Materials. 5	2	T. & A. M. 10—Hydraulics.....	3
Total .....	18	Total .....	17

## FOURTH YEAR FOR THE CLASS OF 1916

C. E. 77—Masonry Construction.....	4	C. E. 80—Engineering Contracts and Specifications .....	2
C. E. 79—Cement Laboratory.....	1	E. E. 4—Elementary Electrical Engineering.....	2
C. E. 81—Theory of Reinforced Concrete. 2	2	E. E. 64—Electrical Engineering Laboratory.....	1
C. E. 83—Bridge Design.....	3	Non-technical elective.....	3
Inspection trip.....	0	R. E. 30—Thesis* or elective.....	3
M. E. 1—Steam and Air Machinery.....	3	R. E. 33—Railway Location.....	4
R. E. 32—Railway Construction.....	3	R. E. 51—Seminar .....	1
R. E. 35—Railway Signaling.....	1		
R. E. 50—Seminar .....	1		
Total .....	18	Total .....	16

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

\*Only students having high grades may elect a thesis.

**Curriculum in Railway Electrical Engineering as Taught in 1915-16****FIRST YEAR FOR THE CLASS OF 1919**

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry	3 or 4	Chem. 4—Qualitative Analysis.....	4
Engineering lecture .....	0	Engineering lecture.....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Plane Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill .....	1
P. T. 1 and 1a—Gymnasium and Hygiene 1	1	P. T. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	17 or 18	Total .....	19
Summer Reading, 50 points			

**SECOND YEAR FOR THE CLASS OF 1918**

Language .....	4	Language .....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M. E. 75—Forge Work.....	1	M. E. 79—Pattern Work.....	3
M. E. 77—Foundry Work.....	2	Mil. 2d—Military Drill.....	1
Mil. 2c—Military Drill.....	1	Phys. 1b—Physics Lectures.....	2
Phys. 1a—Physics Lectures.....	3	Phys. 3b—Physics Laboratory.....	2
Phys. 3a—Physics Laboratory.....	2	T. & A. M. 20—Analytical Mechanics.....	3
Total .....	18	Total .....	18
Summer Reading, 50 points			

**THIRD YEAR FOR THE CLASS OF 1917**

Chem. 4—Qualitative Analysis.....	4	E. E. 26—Alternating Currents.....	4
E. E. 25—Direct Current Apparatus.....	4	E. E. 76—Electrical Engineering Laboratory .....	2
E. E. 75—Electrical Engineering Laboratory .....	2	M. E. 2—Steam Engineering.....	3
Phys. 4a—Electrical and Magnetic Measurements .....	2	Non-technical elective.....	3
R. E. 25—Railway Development.....	3	Phys. 4b—Electrical and Magnetic Measurements .....	2
T. & A. M. 25—Resistance of Materials .....	4	R. E. 60—Electric Railway Principles.....	2
Total .....	19	T. & A. M. 36—Analytical Mechanics.....	2
Total .....			

**FOURTH YEAR FOR THE CLASS OF 1916**

Elective .....	3	E. E. 56—Electrical Design.....	4
Inspection trip.....		Non-technical elective.....	3
M. E. 11—Thermodynamics .....	3	R. E. 63—Electric Railway Laboratory .....	2
M. E. 61—Power Measurement.....	2	R. E. 65—Electric Railway Economics .....	4
R. E. 62—Electric Railway Laboratory .....	2	R. E. 30—Thesis or elective.....	3
R. E. 64—Electric Railway Practise.....	3		
R. E. 66—Electric Railway Machinery .....	3		
R. E. 67—Seminar .....	1		
Total .....	17	Total .....	16
Total .....			

**Curriculum in Railway Mechanical Engineering as Taught in 1915-16****FIRST YEAR FOR THE CLASS OF 1919**

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Chem. 1a <sup>2</sup> or 1b—Inorganic Chemistry	3 or 4	Chem. 4—Qualitative Analysis.....	4
Engineering lecture .....	0	Engineering lecture.....	0
G. E. D. 1—Elements of Drafting.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Plane Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill .....	1
P. T. 1 and 1a—Gymnasium and Hygiene 1	1	P. T. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	17 or 18	Total .....	19
Summer Reading, 50 points			

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>The numbers refer to courses in the Description of Courses, page 257.

## SECOND YEAR FOR THE CLASS OF 1918

Language .....	4	Language .....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M. E. 79—Pattern Work.....	3	M. E. 75—Forge Work.....	1
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Phys. 1a—Physics Lectures .....	3	Phys. 1b—Physics Lectures .....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
		T. & A. M. 20—Analytical Mechanics.....	3
Total .....	18	Total .....	18

Summer Reading, 50 points

## THIRD YEAR FOR THE CLASS OF 1917

Chem. 1a or 1b—Inorganic Chemistry 3 or 4	3	Chem. 16—Engineering Chemistry.....	3
Math. 9a—Integral Calculus.....	2	M. E. 12—Thermodynamics .....	5
Non-technical elective.....	3	M. E. 64—Power Measurement.....	3
R. E. 25—Railway Development.....	3	Non-technical elective.....	3
T. & A. M. 25—Resistance of Materials. 4	4	R. E. 6—Locomotives .....	4
T. & A. M. 27—Analytical Mechanics... 3			
Total .....	18 or 19	Total .....	18

## FOURTH YEAR FOR THE CLASS OF 1916

E. E. 11—Direct Current Apparatus.....	3	E. E. 12—Alternating Current Apparatus	3
E. E. 61—Direct Current Laboratory....	1	E. E. 62—Alternating Current Laboratory	1
Inspection trip.....		Non-technical elective.....	2
M. E. 37—Principles of Management....	3	R. E. 7—Advanced Design.....	3
Non-technical elective.....	3	R. E. 8—Railway Laboratory.....	2
R. E. 2—Locomotive Design.....	3	R. E. 30—Thesis or Elective.....	3
R. E. 5—Railway Laboratory.....	3	R. E. 61—Electric Traction.....	3
R. E. 9—Seminar .....	1		
Total .....	17	Total .....	17

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# THE COLLEGE OF AGRICULTURE

For the *buildings* used by this College, see page 54; for a list of its *curriculums*, page 69; for *clubs auxiliary to its curriculums*, page 115; for *honors*, page 99; for *honorary societies*, page 114; for *fees and expenses*, page 22.

## GENERAL STATEMENT

is College offers curriculums to both men and women. The curriculums offered are designed for four distinct purposes:

1st, and mainly, to train for the profession of farming.

2nd, to train for the teaching of agriculture in the public schools.

3rd, to train for the profession of landscape gardening.

4th, to train for the profession of floriculture.

The curriculums offered by the department of household science have two main objects in view:

1st, and mainly, to train young women in the science and art of housewifery.

2nd, to prepare teachers for giving instruction in domestic science in the schools, and, in connection with the College of Liberal Arts and Sciences, for college and university positions.

In the case of both men and women the great purpose is to prepare for the affairs of life. In order that technical knowledge and skill may be developing with, and not at the expense of, those things which tend to the development of cultured and versatile men and women, the technical work is associated with the related sciences, and students are required to divide their time fairly with those subjects that develop general knowledge rather than of a technical or professional character.

The College offers over ninety courses of instruction in technical subjects, and gives opportunity to elect from the scientific and literary offerings of the other departments of the University.

A selective system prevails, and with a few exceptions the student is left free to elect those subjects which meet his needs, always under the advice and direction of the faculty.

Credit is given for all work accomplished; this credit counts toward graduation if the student desires a degree.

## ADMISSION

The requirements for admission to the College of Agriculture, see the statement of the entrance requirements of the University, pages 71-96.

## MISSION TO GRADUATE WORK IN AGRICULTURE

In general it will be expected that applicants for admission to the College shall have had an undergraduate course in scientific and technical literature equivalent to that of the University of Illinois, yet students

who are otherwise eligible for admission to the Graduate School may be admitted to graduate standing in agriculture if they have had a thoro training in the fundamental sciences, even tho their undergraduate curriculum may have lacked to some extent the amount and kind of technical work included in our course.

## SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

For detailed information concerning scholarships in agriculture and household science, see page 118.

## FACILITIES FOR INSTRUCTION AND METHODS OF WORK

The affiliation of the College with the Agricultural Experiment Station enables the University to support a larger faculty than would otherwise be possible, and permits a higher degree of specialization. For the most part, those who teach in the College conduct experiments in the same subjects in the Station.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails. Text-books are used whenever good ones are available. Laboratory and text are supplemented by lectures and reference readings.

## AGRICULTURAL EXTENSION

Agricultural extension work serves as the intermediary between the College of Agriculture and the Agricultural Experiment Station and the local community and the farm. Each department does extension work, and so far as possible provides special men for such work. The responsibility for the work of these men lies with their own department. For this reason not all of the extension effort issues from one office.

For administrative purposes and for the coordination of these activities through a regular channel, agricultural extension is administered as a separate department, conducting all extension enterprises which do not deal with technical subjects and cooperating with other departments in diffusing the results of their work in the State.

Some of the general extension enterprises are: agricultural extension schools and demonstrations in different localities; the two weeks course given annually at the College in January; helping at farmers' institutes and similar gatherings, with special railway lecture trains, at the boys' state fair school, and in educational exhibits at fairs and elsewhere; welfare work in rural communities; and excursions to the College. (See also under University Extension, Part IV.)

Courses of study are offered to assist in determining what phases of agriculture are suitable for secondary school purposes and how they should be taught, and for the discussion of methods of organizing extension activities.

## AGRONOMY

The department of agronomy gives instruction in those subjects which relate to the field, as drainage, farm machinery, field crops; the chemistry, physics, and bacteriology of the soil; manures and rotation in their relation to fertility; plant breeding. The department possesses equipment and facilities for instruction in these subjects, and, in addition, affords opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, and plant breeding, in the analytical

and pot-culture laboratories and on the experiment fields at the University and in other parts of the State.

Attention is called to the fact that, if circumstances prohibit a regular four-year curriculum, it is possible for a student who has had sufficient preparatory training to arrange his studies so as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years. (See Agronomy 9 and 12.)

### ANIMAL HUSBANDRY

The department of animal husbandry offers courses covering the study of sheep, swine, poultry, and beef cattle and their products; heavy and light horses with their care and training; the management of herds, flocks and studs; the principles and practise of feeding, breeding, and marketing; and the chemical and physiological phases of animal nutrition.

The University herds, flocks, and studs contain about six hundred pure bred cattle, swine, sheep, and horses, and several hundred fowls, ducks, and turkeys, which are available for class purposes. These animals are also used for investigations in feeding and breeding, and for illustration of breed types and characteristics. The breeds represented are Shorthorn, Hereford, and Aberdeen Angus cattle; Poland-China, Berkshire, Duroc Jersey, Chester White, Tamworth, Large Yorkshire, and Hampshire swine; Shropshire, Oxford, Southdown, Hampshire, Rambouillet, and Dorset sheep; and Percheron, Standard-bred, Shire, Belgian, and American Saddle horses. In addition to this pure-bred live stock, a large number of grade animals of the various classes of live stock furnish material for judging practise. In this practise, standard market classes and grades of live stock are illustrated, and instruction is given in the selection of animals according to feed-lot and market requirements. The new stock pavilion offers opportunity for show and judging work. (For detailed description see page 55). The lectures of the various courses are supplemented by 1,000 or more lantern slides, charts, diagrams, models, and photographs. Pedigree and breed work is facilitated by 75 sets of the different herd, stud, and flock registers, and complete files of the leading American and British journals.

The equipment for instruction and investigation in the feeding, breeding, and management of live stock consists of modern buildings for the housing of beef cattle, swine, sheep, horses, and poultry, with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which steers may be fed in carload lots; a feed storage barn, with various forms of grinding mills and other machinery for the preparation of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold-storage room and other equipment for demonstrations in the cutting and handling of meats; a collection of wool samples, and microscopes for the study of wool. The chemistry and physiology laboratories of the department afford facilities for advanced work in animal nutrition.

### DAIRY HUSBANDRY

The department of dairy husbandry furnishes instruction in the production and care of milk and in the manufacture of dairy products.

The various courses cover the application of science to dairy problems, approved methods in dairy operations, and the economic significance of these operations.

In addition to laboratories and lecture rooms, its equipment includes a farm of 160 acres with buildings; about 100 milch cows, bulls, and young stock, including typical representatives of the Ayrshire, Guernsey, Jersey, and Holstein-Friesian breeds; a manufactory with modern equipment for handling city milk and making butter, cheese, ice cream, and bulk condensed milk; and facilities for the distribution of milk on the University milk route.

## HORTICULTURE

The department of horticulture offers fifty-four courses, in the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry), and also in subjects dealing with all the divisions, such as plant propagation, spraying, the evolution of horticultural plants, and experimental horticulture.

For instruction in pomology, use is made of the various fruit plantations maintained by the department. The orchards of different ages afford opportunities for practise in pruning and studies of tree types, while the products furnish materials for practise in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages illustrates the types used in commercial packing. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For olericulture, or vegetable gardening, certain areas of ground are reserved on which garden operations are illustrated and various crops are grown. The equipment also includes a greenhouse 105x28 feet, hotbed frames and sash, and an assortment of seed drills and wheel hoes, hand tools, markers, planters, and other appliances for the growing and handling of vegetables.

The equipment in floriculture includes ten glass houses covering an area of 28,000 square feet, and a service building. Six of the houses, including the palm house with an area of 3,200 square feet, are used for instructional work exclusively, and the other four, while intended primarily for experimental purposes, add to the facilities for instruction in floriculture as conducted on a commercial basis. Besides roses, carnations, and chrysanthemums, the houses contain a selection of plants representing all the forms used in commercial and decorative or conservatory work. The service building contains laboratories, class rooms, offices, and potting, storage, and work rooms. An assortment of florists' supplies is maintained. Floricultural periodicals, reference books, and a series of over five hundred slides add to the equipment. The ornamental gardens maintained by the department furnish illustrative materials for students in floriculture and landscape gardening.

The equipment in landscape gardening includes four drafting rooms with desks for individuals, modern filing devices for office practise, seminar rooms, lecture rooms, offices, and a library. The library contains a complete collection of books, periodicals, pamphlets, photographs of examples of foreign and American landscape gardening, and works on civic design, all carefully indexed. There is also a collection of representative drawings and blue-prints from the offices of practising landscape architects.

The collection of trees and shrubs growing on the campus and about certain residences near the University furnishes material for plant studies in the courses in planting design. The herbarium of the division is also available for reference. A series of 1,500 lantern slides is used in lectures.

Instruction in forestry is facilitated by a collection of native woods and a forest tree plantation of about twenty acres, containing Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

### HOUSEHOLD SCIENCE

The courses given in this department are planned to meet the needs of two classes of students, viz: (a) those specializing in other lines of work, but desiring a knowledge of the general principles and facts of household science; (b) those who wish to specialize in household science.

The department is housed in the north wing of the Woman's Building. The kitchen for extension work, with dining room adjoining, is in the basement. The first floor contains two class rooms, a seminar room, an exhibition room for illustrative material for work in house construction and textile fabrics, offices, and cloak rooms. On the second floor are individual, diet, institutional, and class kitchens, small and large dining rooms, chemical laboratory, two large sewing rooms, offices, and store rooms. On this floor provision is made for the study of the preparation and service of food in large quantities in the institutional kitchen and large dining room adjoining. The equipment on this floor provides practise for those interested in the problems of lunch-room management and for dietitians. The third floor contains additional sewing rooms, offices, equipment for teaching home care of the sick, and an apartment in which the problems of house construction and furnishing and household administration are studied.

### REQUIREMENTS FOR GRADUATION

Students who have satisfied all matriculation requirements and have maintained throughout their course a satisfactory record of scholarship and moral character will be graduated with the degree of Bachelor of Science, upon having completed the studies of the prescribed list and sufficient electives to make a total of 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours before the senior year may then elect a thesis course in any department in which he has done not less than 20 hours' work, subject to the approval of the head of the department in question.

Graduates of approved colleges may expect to secure a degree in agriculture from the University of Illinois upon completion of the technical and scientific requirements. This will ordinarily require two years of residence work; a minimum of one year will be exacted.

### GENERAL CURRICULUM IN AGRICULTURE

All students except those in the special curriculums in household science, floriculture, and landscape gardening are required to take the same work during the freshman year and part of the sophomore year. This work gives the student a correct conception of the fundamental farm practises and an insight into the technical branches of agriculture, such as animal and dairy husbandry, horticulture, farm crops, soils, farm mechanics, and buildings, and leaves the junior and senior years open for elective studies.

One hundred thirty hours are required for graduation, as follows:

Agriculture prescribed first two years.....19 hours

Agriculture prescribed as electives.....40 hours

Total agriculture required.....	59 hours
Non-agriculture prescribed .....	42 hours
Non-agriculture prescribed as electives.....	15 hours
Total non-agriculture required.....	57 hours
Open electives .....	14 hours
	130 hours

### Prescribed Subjects

*Required for the Degree of Bachelor of Science in the General Curriculum in Agriculture*

#### FIRST YEAR

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
Ag. Ext. 4—Country Life Problems	1	A. H. 5—Live Stock Judging.....	3
Agron. 25—Farm Crops.....	4	Chem. 2a—Inorganic Chemistry and Qualitative Analysis .....	5
Chem. 1 or 1a—Inorganic Chemistry .....	5 or 3	D. H. 3—Elements of Dairy Husbandry .....	1
Hort. 1a—Elements of Horticulture	2	Hort. 1b—Elements of Horticulture.	2
Mil. 2a—Military Drill.....	1	Mil. 1—Drill Regulations.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1	Mil. 2—Military Drill .....	1
Rhet. 1*—Rhetoric and Themes.....	3	Phys. Tr. 2—Gymnasium.....	1
 		Rhet. 2—Rhetoric and Themes.....	3
Total .....	17 or 15	Total .....	17

#### SECOND YEAR

A. H. 8 and 21—Principles of Breeding and Feeding .....	3	A. H. 8 and 21—Principles of Breeding and Feeding .....	3
Botany 1—General Botany.....	5	Botany 1—General Botany.....	5
or		or	
Agronomy 26—Elementary Farm Mechanics .....	3	Agronomy 26—Elementary Farm Mechanics .....	3
and		and	
Chemistry 13a—Elementary Quantitative Analysis .....	5	Chemistry 13a—Elementary Quantitative Analysis.....	5
Electives .....		Elective .....	
Mil. 2c—Military Drill.....	1	Military 2d—Military Drill.....	1
 		Total .....	9
Total .....	9	Total .....	9

In addition to the above, students will take the following:

Agriculture, electives .....	40 hours
Non-agriculture, electives .....	15 hours
English 20 .....	4 hours
Science, elective .....	5 hours
Open electives .....	14 hours

<sup>1</sup>Semester hours. For definition see page 259.

\*Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 79.

**CURRICULUM IN FARM ORGANIZATION AND MANAGEMENT****FIRST YEAR****FIRST SEMESTER****Prescribed Subjects**

	Hours <sup>1</sup>
Agron. 25—Farm Crops.....	4
Ag. Ext. 4—Country Life Problems.....	1
Chem. 1 or 1a—Inorganic Chemistry..5 or 3	5 or 3
Hort. 1a—Elements of Horticulture.....	2
Mil. 2a—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1
Rhet. 1*—Rhetoric and Themes.....	3

**SECOND SEMESTER****Prescribed Subjects**

	Hours <sup>1</sup>
A. H. 5—Live Stock Judging.....	3
Chem. 2a—Inorganic Chemistry and Qualitative Analysis .....	5
D. H. 3—Elements of Dairy Husbandry.....	1
Hort.—Elements of Horticulture.....	2
Mil. 1—Drill Regulations.....	1
Mil. 2b—Military Drill.....	1
Phys. Tr. 2—Gymnasium.....	1
Rhet. 2—Rhetoric and Themes.....	3

**SECOND YEAR****Prescribed Subjects**

A. H. 8 and 21—Principles of Breeding and Feeding .....	3
Mil. 2c—Military Drill.....	1

**Prescribed Subjects**

Agron. 26—Elementary Farm Mechanics.....	3
Mil. 2d—Military Drill.....	1

In addition to the above courses the following are also prescribed:

Accountancy 11 .....	3 hours
Economics 2 or 1.....	3 or 5 hours
Economics 16c .....	3 hours
Economics 22 .....	3 hours
Economics 23 .....	3 hours
Business Law 2.....	3 hours
Elective economics, minimum of.....	6 hours
Farm Management 1.....	3 hours
English 20 .....	4 hours
Philosophy 1.....	3 hours
Elective science, minimum of .....	15 hours
Elective agriculture, minimum of .....	28 hours
Open electives .....	11 or 9 hours

Total prescribed ..... 130 hours

To avoid conflicts with other prescribed work it is suggested that the courses in economics, accountancy, and farm management be taken in the following order:

**SECOND YEAR**

Business Law 2.....	3
Economics 22.....	3

**THIRD YEAR**

Accountancy 11.....	3
Economics 14 .....	2
Economics 16c .....	3

**FOURTH YEAR**

Economics 15 .....	2
Business Law 2.....	3

**Economics 17 .....****CURRICULUM IN FLORICULTURE**

The object of this curriculum is to fit men and women for the profession of floriculture. The laboratory exercises in the technical subjects consist of practical work in the greenhouses and gardens and give the students a working knowledge of the best methods now in use.

**FIRST YEAR****FIRST SEMESTER****Prescribed Subjects**

	Hours <sup>1</sup>
Chem. 1 or 1a—Inorganic Chemistry..5 or 3	5 or 3
Ent. 4—Economic Entomology.....	3
Hort. 4—Plant Houses.....	4
Mil. 2a—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1
Rhet. 1—Rhetoric and Themes.....	3

**SECOND SEMESTER****Prescribed Subjects**

	Hours <sup>1</sup>
Chem. 2a—Inorganic Chemistry and Qualitative Analysis .....	5
Hort. 5—Plant Propagation .....	5
Mil. 1—Drill Regulations .....	1
Mil. 2b—Military Drill .....	1
Phys. Tr. 2—Gymnasium .....	1
Rhet. 2—Rhetoric and Themes.....	3

Total ..... 15 or 17

Total ..... 16

<sup>1</sup>Semester hours. For definition see page 259.

\*Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 79.

SECOND YEAR			
Bot. 1—General Botany.....	5	Agron. 9—Soil Physics.....	5
Eng. 20—Chief English Writers.....	4	Hort. 15a—Principles of Plant Growing.....	5
Mil. 2c—Military Drill.....	1	Mil. 1—Drill Regulations .....	1
		Mil. 2d—Military Drill.....	1
Total .....	10	Total .....	12
THIRD YEAR			
Bot. 7a—Plant Pathology .....	5	Bot. 3b—Plant Physiology .....	5
Econ. 2—Principles of Economics.....	3	Hort. 7—Spraying.....	3
Hort. 15b—Commercial Crops.....	5	Hort. 24a—Trees and Shrubs.....	3
Total .....	13	Total .....	11
FOURTH YEAR			
Hort. 31—Garden Flowers .....	3	Hort. 30—Decorative Plants .....	5
Hort. 24b—Trees and Shrubs.....	3	Hort. 42—Landscape Design .....	3
		Hort. 32—Floral Decoration.....	4
Total .....	6	Total .....	12
Suggested Electives			
Accountancy .....		Agron. 12—Soil Fertility .....	5
Chem. 13a—Elementary Qualitative Analysis .....	5	A. H. 30—Genetics .....	5
Economics .....		Bot. 3a—Plant Anatomy.....	5
Hort. 28—Exotics .....	1	Bot. 4a—Taxonomy of Cormophytes.....	5
		Botany 7b—Methods of Study of Fungi.....	5

### CURRICULUM IN HOUSEHOLD SCIENCE

Of the 130 hours required for graduation, 91 are provided for in the prescribed list and the restricted electives of List A. The other 39 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in household science in this College take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the College.

#### Prescribed Subjects

##### Required for the Degree of Bachelor of Science in Household Science

Art and Design 1, 12, 19, 20.....	9 hours
Bacteriology 5.....	5 hours
Botany 1 .....	5 hours
Chemistry, 1, 2a .....	10 hours
English, 1, 2.....	8 hours
Household Science 1, 2, 3, 5, 6, 7, 10, 12.....	20 hours
History 1a-1b, or 3a-3b.....	6 or 8 hours
Physiology 4a or 4b.....	5 hours
Physical Training 7a-7b, 9.....	3 hours
Rhetoric 1, 2.....	6 hours
Zoology .....	5 hours
English or Rhetoric .....	5 hours
*List A, a minimum of.....	4 hours

Total required subjects .....	91 to 93 hours
Electives .....	39 to 37 hours

Total .....	130 hours
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\*If physics has not been offered for entrance, its equivalent should be elected.

**Electives**

List A—English 21, 22, 23, 24

Horticulture 1a, 1b, 2, 3, 5, 19, 28, 10a  
 Household Science 11, 13, 14, 17, 18, 19  
 Economics 2, 22, 26  
 Sociology 1  
 Physics 7a, 8a  
 Education 1, 6, 10  
 Agronomy 7, 9, 12, 25, 26  
 Animal Husbandry 10, 5  
 Dairy Husbandry 1, 3, 19, 11, 4  
 Agricultural Extension 1, 3, 4, 5

**Suggested Curriculum****FIRST YEAR**

FIRST SEMESTER	Hours <sup>1</sup>	SECOND SEMESTER	Hours <sup>1</sup>
A. & D. 1—Freehand Drawing.....	3	Chem. 2a—Inorg. Chem. and Qual. Anal.	5
<sup>2</sup> Chem. 1 or 1a—Inorganic Chemistry.....	5 or 3	H. Sci. 1—Sel. and Prep. of Food.....	3
H. Sci. 2—Home Arch. and Sanitation.....	2	H. Sci. 7—Textiles .....	2
P. T. 7—Gymnasium Practise.....	1	Lib'y 12—General Reference.....	2
P. T. 9—Hygiene .....	1	P. T. 7—Gymnasium .....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	13	Total .....	16

**SECOND YEAR**

Bot. or Zool. 1.....	5	A. & D. 12—Applied Design.....	2
Econ. 26—Economic Resources.....	3	Econ. 22—Econ. Hist. of U. S.....	3
Eng. 1—Survey of Eng. Lit.....	5	Electives .....	4
H. Sci. 6—Econ. Uses of Food.....	3	Eng. 2—Survey of Eng. Lit.....	5
Hort. 19—Amateur Floriculture.....	3	Physiol. 4—Minor Course.....	5
Total .....	19	Total .....	14

**THIRD YEAR**

A. & D. 19—History of Fine Arts.....	2	A. & D. 20—History of Fine Arts.....	2
Electives .....		Bact. 5—Intro. Bacteriology.....	5
Eng. 23—Intro. to Shakespeare.....	3	Econ. 2—Principles of Econ.....	3
Hist. 1a or Hist 3a.....	4 or 3	Electives .....	2
H. Sci. 5—Dietetics.....	3	H. Sci. 3—Home Decoration.....	2
H. Sci. 19—Dress Design .....	2	H. Sci. 12—Clothing .....	2
Publ. Sp. 1—Oral Expression.....	2		
Total .....	14 or 13	Total .....	14

**FOURTH YEAR**

Edu. 1—Intro. to Education.....	4	Edu. 10—Technics of Teaching.....	3
Electives .....		Electives .....	
H. Sci. 13—Hist. of Home Economics.....	2	H. Sci. 10—Home Management.....	2
Sociol. 1—Principles of Soc.....	3	H. Sci. 11—Teachers' Course.....	3
		H. Sci. 17—Study of Textiles.....	3
Total .....	9	Total .....	11

<sup>1</sup>Semester hours. For definition see page 259.<sup>2</sup>If Chemistry 1a is taken, a 2-hour elective must be added, with the approval of the adviser.<sup>3</sup>Attention is called to the fact that high school physics is a prerequisite for Household Science 1.

## CURRICULUM IN LANDSCAPE GARDENING

## FIRST YEAR

FIRST SEMESTER Prescribed Subjects	Hours <sup>1</sup>	SECOND SEMESTER Prescribed Subjects	Hours <sup>1</sup>
Arch. 31—Drawing.....	4	Arch. 32—Architectural Drawing.....	4
Bot. 1—Introductory Course.....	5	Hort. 5—Plant Propagation.....	5
Hort. 10a—Rural Improvement.....	2	Hort. 10b—Town Improvement.....	2
Math. 4—Trigonometry .....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
Phys. Tr. 1 and 1a—Gymnasium and Hygiene .....	1	Plys. Tr. 2—Gymnasium.....	1
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Total .....	18	Total .....	17

## SECOND YEAR

Prescribed Subjects	Hours <sup>1</sup>	Prescribed Subjects	Hours <sup>1</sup>
Bot. 4d—Taxonomy.....	3	C. E. 32—Surveying.....	3
C. E. 31—Surveying .....	3	Hort. 21b—Landscape Design.....	4
Hort. 21a—Landscape Design.....	4	Hort. 24a—Trees and Shrubs.....	3
Hort. 31—Garden Flowers.....	3	Mil. 2d—Military Drill.....	1
Mil. 2c—Military Drill.....	1		
Total .....	14	Total .....	11
Electives		Electives	
A. and D. 12—Theory and Practise.....	2	Arch. 14—History of Architecture.....	2
Arch. 13—History of Architecture.....	2	Ent. 4b—Introductory Economic Entomol. ogy .....	3
		Geol. 12—Geology of Soils.....	5
		Hort. 2—Small Fruits.....	2
		Zool. 16—Field Ornithology.....	2

## THIRD YEAR

Prescribed Subjects	Hours <sup>1</sup>	Prescribed Subjects	Hours <sup>1</sup>
Hort. 23a—Landscape Design.....	4	Hort. 23b—Landscape Design.....	4
Hort. 24b—Trees and Shrubs.....	3	Hort. 26a—Planting Design.....	3
Hort. 27a—Landscape Construction.....	3	Hort. 27b—Landscape Construction.....	3
		Hort. 36—Landscape Reading.....	2
Total .....	10	Hort. 41—Civic Design (Elementary Course) .....	1
		Total .....	13
Electives		Electives	
Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
A. and D. 13—History and Practise.....	2	A. and D. 8—Modeling .....	2
Econ. 2—Principles of Economics.....	2	Bot. 20—Plant Diseases.....	3
Hort. 8—Fruit Culture.....	2	Hort. 7—Spraying .....	3
Hort. 29a—Garden Design.....	3	Hort. 9—Forestry .....	2
Sociol. 1—Principles of Sociology.....	3	Hort. 29b—Garden Design.....	3
		Rhet. 17—Advanced Composition.....	3
		Sociol. 7—The Rural Community.....	2

## FOURTH YEAR

Prescribed Subjects	Hours <sup>1</sup>	Prescribed Subjects	Hours <sup>1</sup>
C. E. 55—Roads and Pavements.....	2	Hort. 25b—Landscape Design.....	5
Hort. 25a—Landscape Design.....	5	Hort. 28—Exotics .....	1
Hort. 26—Planting Design.....	3	Hort. 37b—Civic Design.....	3
Hort. 37a—Civic Design.....	3	Hort. 38—Office Practise.....	2
Total .....	15	Total .....	11
Electives		Electives	
A. and D. 4—Water Color .....	2	Hort. 15—Plant Growing.....	5
Hort. 25a—Extra hours.....	2	Hort. 40b—Trees and Shrubs (Adv. Course) .....	3
Hort. 40a—Trees and Shrubs (Advanced Course) .....	3	Hort. 25b—Extra hours.....	
Pol. Sci. 4—Municipal Government.....	3		
Sociol. 10—Population.....	3		
General		Electives	
Hort. 19—Amateur Floriculture.....	3	Chem. 1 or 1a—Inorganic Chemistry ..5 or 3	
*Hort. 39—Special Lectures.....	1-8	Modern Language.....	8
Zool. 1—General Zoology.....	2	Physics .....	10

<sup>1</sup>Semester hours. For definition see page 259.

\*Students taking the professional course are required to register in Horticulture 39 each semester.

**CURRICULUM FOR PROSPECTIVE TEACHERS OF AGRICULTURE**

A curriculum is offered for prospective teachers of agriculture. Among the subjects recommended are the following:

Agronomy 2, 9, 12, 25, 26; Animal Husbandry 1a, 2a, 4a, 5, 6, 11a, 11b, 30\*; Dairy Husbandry 2, 3; Horticulture 1a, 1b, 3, 5, 10a, 19; Agricultural Extension 1, 4-5; Botany 1, 3b; Chemistry 1, 2, 3, 13a; Entomology 4a-4b; Zoology 1; English 20; Rhetoric 1-2, 19; Public Speaking 5-6; Economics 2; Education 1, 6; Library Science 12; Military 1, 2; Physical Training 1, 2, 1a; foreign language.

For further information concerning this curriculum, address the Dean of the College of Agriculture.

**TWO WEEKS' COURSE IN AGRICULTURE**

The Corn Growers' and Stockmen's Convention is held usually at the College of Agriculture (not held in 1915 and 1916 on account of the foot and mouth disease). At the time of this meeting, the College gives instruction for two weeks in subjects of special interest to young men on the farm, such as corn and stock judging, milk and seed testing, soils, etc. A morning session of two hours each day is devoted to the discussion of questions of importance to the farmer. In the afternoon an hour is given to lectures upon topics of general interest. The rest of the day is filled with class work in the subjects mentioned above. Each year about a thousand men who are unable to spend a longer time away from home avail themselves of this opportunity to come in touch with the work of the College.

**THE SCHOOL FOR HOUSEKEEPERS**

A two-weeks' course in household science consisting of lectures and recitation work is given in the rooms of the department of household science in the Woman's Building. (See University Extension, Home Economics, Part IV.)

**Admission to Short Courses**

No entrance examinations are required and any farmer or farmer's son or daughter may enter these courses. It is important that everyone should be here at the opening of the session. Upon arrival at Champaign or Urbana, application should be made at the University Young Men's Christian Association, where information concerning board and room may be obtained.

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\*Students taking the Curriculum for Teachers may take Animal Husbandry 30 for one-half semester and receive 2½ credits therefor.

# THE GRADUATE SCHOOL

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## THE EXECUTIVE FACULTY

EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

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- DAVID KINLEY, Ph.D., LL.D., *Dean, Professor of Economics*  
BOYD HENRY BODE, Ph.D., *Professor of Philosophy*  
ALBERT PRUDEN CARMAN, A.M., D.Sc., *Professor of Physics*  
JULIUS GOEBEL, Ph.D., *Professor of Germanic Languages*  
GEORGE ALFRED GOODENOUGH, M.E., *Professor of Thermodynamics*  
HARRY ALEXIS HARDING, Ph.D., *Professor of Dairy Bacteriology*  
LAURENCE MARCELLUS LARSON, Ph.D., *Professor of History*  
HERBERT WINDSOR MUMFORD, B.S., *Professor of Animal Husbandry*  
WILLIAM ABBOTT OLDFATHER, Ph.D., *Professor of the Classics, Secretary*  
STUART PRATT SHERMAN, Ph.D., *Professor of English*  
ARTHUR NEWELL TALBOT, C.E., *Professor of Municipal and Sanitary Engineering*  
EDGAR JEROME TOWNSEND, Ph.D., *Professor of Mathematics*  
HENRY BALDWIN WARD, Ph.D., *Professor of Zoology*  
EDWARD WIGHT WASHBURN, Ph.D., *Professor of Physical Chemistry*

## HISTORY AND ORGANIZATION

Altho for many years the University of Illinois had offered advanced students facilities for study and research in various lines, graduate work was undertaken under the name of the Graduate School for the first time in 1892. In 1894 the administration of the school was vested in the Council of Administration, and the Vice-President of the University became Dean of the School. In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President.

By act of the Trustees the teaching faculty of the Graduate School includes all members of the University faculty who give instruction in approved graduate courses. The affairs of the School, however, are in charge of the executive faculty appointed each year by the President.

## ADMISSION

Admission to the Graduate School may be granted to graduates of institutions whose requirements for the bachelor's degree are substantially equivalent to those of the University of Illinois, and to applicants from other institutions approved by the executive faculty, as hereinafter provided. *Admission to the Graduate School does not, however, imply admission to candidacy for an advanced degree.*

A graduate of an institution meeting the requirements of a standard college, as described below, may be admitted to the Graduate School, provided he satisfies the Dean and the departments concerned that he will be able to proceed to the master's degree in a period not exceeding two years.

For purposes of admission to the Graduate School a *standard college* is one which meets the following requirements:

a. The college shall require four years' work of collegiate grade for graduation, based on an entrance requirement of at least fourteen standard high-school units.

b. If conditioned students are admitted, they shall not be allowed to proceed beyond the sophomore year without removing their conditions.

c. The college shall maintain at least six departments in liberal arts and sciences, each having at least one professor in each department giving his entire time to the college work of his department.

d. The minimum educational attainment of college professors shall be equivalent to graduation from a college of high grade and graduate work equivalent at least to that required for a master's degree from the University of Illinois.

e. The college shall have a productive endowment sufficient to yield a net annual income of at least \$10,000 available for instructional purposes in the college. If the institution offers courses in addition to the usual liberal arts course, it shall have a correspondingly larger annual income.

f. The college shall have library and laboratory equipment sufficient to meet fully the needs of the courses announced.

g. In addition to the foregoing specific requirements, so far as possible the general standing of the college shall be considered, including: the character of its curriculum, the efficiency of its instruction, the number of hours of instruction required of the members of its faculty, the size of the classes, the general standards for graduation, its conservatism in granting degrees based on work done *in absentia*, the success of its graduates in the Graduate School of this University and elsewhere.

Unless otherwise specially permitted, a student enrolled in the Graduate School must take each semester at least one course accepted by the executive faculty for credit in his major subject.

Admission to particular graduate courses or departments may be granted only to those who have had the requisite undergraduate work in those courses or departments. But a student of mature age who satisfies the Dean and the department concerned of his ability to pursue graduate work in a given line may be enrolled in particular graduate courses, and permitted to carry on such study or investigation under the direction of a department of the University as the department shall recommend and the executive faculty approve.

Application blanks may be secured from the Dean of the Graduate School or from the Registrar of the University.

#### **REGISTRATION AND PROGRAM OF STUDY**

After the students' application for admission has been approved, he receives at the Dean's office a permit to register and also a study blank. This study blank must be filled out with the advice of the professors in charge of the selected work.

#### **Advisers**

The person in charge of the major work of the student becomes his adviser, and, together with those with whom the student is taking first and second

minor courses, forms a committee with general supervision over the student's general course of study. The committee is expected to follow the student's work and see that he is helped to lay out an intelligently planned course, and to give him such advice as may be necessary concerning his scholastic career.

#### Amount of Work

Each student is required to attend a minimum of four class, lecture, or laboratory exercises a week, in the first year of his graduate study; and in no case is he permitted during his course to attend more than twelve a week.

Each first year student doing full work must take at least four unit courses. A unit course is one which requires ten hours of time a week through one semester, irrespective of the mode of distribution of that time in class work, laboratory work, and private study. Four such courses or their equivalent constitute a full minimum program for one semester, and eight such courses, or their equivalent of graduate grade, constitute the minimum year's work required for a master's degree.

Therefore, registration for full work for the master's degree ordinarily provides for three unit courses, or their equivalent, a semester, in addition to a thesis, the time devoted to the thesis being ordinarily reckoned as equivalent to that for one unit course, or ten hours of time a week. If a student is excused from writing a thesis he must take four unit courses or their equivalent a semester.

Unless otherwise specified by the department concerned, a course for graduates and advanced undergraduates, not open to students below senior grade and counting four or five hours of undergraduate credit, if taken by graduate students, will be treated as a unit course; when counting less than four hours of undergraduate credit, such a course, if taken by graduate students, will be treated as a half-unit course.

Unless otherwise specified by the department, a course the prerequisites of which are such as to make it possible for juniors or sophomores to be admitted, if taken by a graduate student, is counted as a half-unit course, or a quarter-unit course, according to the number of hours of undergraduate credit for which the course is given.

#### Miscellaneous and Listener's Courses

Graduate students are permitted under proper circumstances to attend classes as visitors, or listeners, and to elect miscellaneous subjects, that is, courses which do not count towards an advanced degree. Under the authority conferred by the faculty on the Dean no student will be permitted by the Dean to visit more than one class or to take more than one miscellaneous subject, nor is any subject open as a listener's or miscellaneous course unless it has a specific educational bearing on the student's major or minor subjects of study.

The above regulations concerning the program of studies are laid out primarily for first year students. Second and third year graduate students fill out their programs irrespective of unit value of courses, according to their needs, under the advice of their instructors.

#### Students on the Staff

Assistants and others on the University staff who undertake to do graduate work are permitted to take an amount of work determined by the terms of their employment. Such a student, applicant for a master's degree, must

ordinarily stay through at least two years. In no case will the doctor's degree be conferred upon an applicant otherwise fit in less than four years if he is on the staff in any capacity.

#### Residence and Transfer of Credit

Continuous residence and study are required of all members of the Graduate School, unless they are granted leave of absence by the Dean, on recommendation of the professors in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

Students should note, moreover, that all the work for the master's degree must be done in residence at the University, excepting in the case of members of the staff who have spent half of their time in study through a year at some other institution, and then do the rest of the work required during a year's residence here. Credit for work done elsewhere is not "transferred." The candidate is examined here on all the work required for the degree.

#### CHARACTER OF GRADUATE WORK

The principal aim of graduate study is the development of the power of independent work and the promotion of the spirit of research. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work; for the graduate student is not expected to get from lecture and laboratory courses all the knowledge and training necessary to meet the requirements for his degree.

Students, especially candidates for the doctor's degree, are warned against restricting themselves to the courses prescribed or suggested by the departments in which they are studying. Each student is expected to do a wide range of private reading and study, and in many cases will find it advisable to take one or more courses of lectures quite outside the field of his chosen subject.

#### THE MASTERS' DEGREES

Candidates for the degree of Master of Arts or Master of Science are required to do at least one year's work in residence and to write a thesis.

##### Majors and Minors

A candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. The candidate must do at least half his work in his major subject.

##### Master's Thesis

Each candidate for a master's degree is also required to present a thesis on some subject approved by the professor in charge of his major work and the faculty of the School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work, and the approval of the Dean, provided application to waive the thesis is made at the beginning of the year. *In no case will permission to take the degree without the thesis be given by the Dean if applied for later than the latest date for the approval of thesis subjects, as shown by the calendar.*

The thesis required from a candidate for a master's degree ordinarily will demand about one-fourth of the student's time. The thesis must be typewritten, on "thesis paper," and the title-page must be printed. The thesis in its final form, together with a certificate of approval by the proper officer, must be left by the professor in charge at the Dean's office at the time set in the calendar.

### Advanced Degrees in Engineering

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The academic second degree in engineering is Master of Science, following Bachelor of Science, in Architecture, Architectural Engineering, Civil Engineering, Electrical Engineering, etc. This degree is conferred in accordance with the regulations described above for *academic work in residence only*.

The *professional* second degrees in engineering are as follows:

Master of Architecture after B.S. in Architecture.

Architectural Engineer after B.S. in Architectural Engineering.

Civil Engineer after B.S. in Civil Engineering or B.S. in Municipal and Sanitary Engineering.

Electrical Engineer after B.S. in Electrical Engineering.

Mechanical Engineer after B.S. in Mechanical Engineering.

Mining Engineer after B.S. in mining engineering.

Civil Engineer, Electrical Engineer, or Mechanical Engineer after B.S. in Railway Engineering, according to the course.

Professional degrees are conferred upon two classes of candidates: (1) graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after receiving the degree of Bachelor of Science; (2) graduates of the University of Illinois, or of institutions of equal standing, who have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigation of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the commencement at which he proposes to qualify. Prior to December 31 next succeeding, he must submit for approval an outline of his proposed thesis and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are accepted, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional degrees in engineering who already hold the degree of Master of Science may qualify for the professional degree after two years of professional work.

A candidate for a professional degree in engineering must pay the incidental fee of twenty-four dollars on being notified that his professional study and experience are accepted as qualifying him to enter as a candidate for the degree. No one will be enrolled as a candidate for the degree at the following commencement who does not pay his fee at this time. When a candidate for

a professional degree in engineering has once been accepted and paid his fee, he is eligible to receive the degree at any time within five years, without additional fee, on completion of the requirements; provided, however, that unless he completes the requirements within two years his name will be dropped from the list of candidates and in order to receive the degree within the five-year period he must register once more.

### THE DEGREE OF DOCTOR OF PHILOSOPHY

*General Statement of Requirements.*—The requirements for the degree of Doctor of Philosophy are a thorough mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The major subject is the field in which the student expects to become expert and an authority. The first minor should ordinarily be a subject closely related to the major, and under certain conditions and with proper approval, may be a subdivision of the major field of study. The second minor should be chosen outside of the major field of study.

When a candidate chooses any subject as his major, and a division of that subject as his minor, he is not permitted to choose as a second minor any division of work in that same department, excepting by vote of the executive faculty of the School.

The candidate's list of subjects must receive the approval of the head of the department in which he chooses his major work and of the Dean of the School.

*Period of Study.*—The *minimum* period of study required for securing the degree of Doctor of Philosophy is three years. The degree is conferred, however, not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.

Credit for work done in other universities is not "transferred." The candidate is examined here on the subjects offered by him for the advanced degree. However, his period of residence at another institution of proper grade may be accepted as fulfillment of the residence requirement of the University of Illinois so far as it goes.

At least the first two or the last one of the three years required must be spent at this University.

*Examination.*—Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination conducted by the members of the faculty with whom he is doing his principal work, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is intended to test the student's knowledge of the fields of his major and minor subjects of study. It is partly oral, and may be wholly so. At this time, or before, the candidate will be required to demonstrate his ability to read French and German, and any other language needed for the prosecution of his work.

On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination. Besides the written examination set by the departments of the major and minor

studies, the candidate must also take an oral examination, given by a committee appointed by the Dean. The oral examination is primarily on the research work of the student, as embodied in his thesis, but it is not confined to this. It extends to the whole field of the study of the candidate. It will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the fields of knowledge represented by his course of study.

Before the candidate is admitted to the final examination and the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The final examination in the major and minor subjects may not be divided. The examination must be taken all at one time even tho it requires several sessions.

*Thesis.*—The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The subject of the thesis should be chosen not later than the end of the second year of study and must be submitted for formal approval by the faculty not later than the first Monday of November of the year when the degree is expected. Unless previously printed with proper authority, a typewritten copy of the complete thesis, *on thesis paper\**, must be in the hands of the Dean not later than noon of the Saturday nearest the middle of May, for submission to the examining committee.

The doctor's thesis must be printed and one hundred copies deposited in the Library of the University not later than the first of June preceding the conferring of the degree. If it is not printed by the first of June, the student must deposit seventy-five dollars (\$75) or a bond for that amount satisfactory to the Comptroller of the University and the Dean of the Graduate School. If a bond is accepted, it must be replaced at the end of one year with a cash deposit. At the end of two years, if the thesis has not then been printed by the student, the University will print such part of it as it deems best.

The cash deposit made by the student who does not print his thesis by the end of the second year after his degree is conferred becomes the property of the University, to be used for the general purpose of printing theses.

The title page of each thesis, whether typewritten or printed, must bear the words, "Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in—(here put the major subject)—in the Graduate School of the University of Illinois." The title page must also contain the full name of the author, his previous degrees, the full title of the thesis, the year of imprint, and, if a reprint, the title, volume and statement of the

\*No other will be accepted by the Dean.

pagination of the volume from which it is reprinted. Each thesis must have an appendix giving a short biography of the candidate, including the institutions he has attended, his degrees and honors, the titles of his publications, and such other matters as are pertinent.

*Doctor's Degree in Engineering.*—The degree of Doctor of Philosophy in Engineering is offered in certain lines of academic graduate work of a high scholastic type in engineering science that will attract students who wish to prepare themselves as teachers, investigators, and experts.

The general requirements for this degree, as to preliminary education, linguistic attainments, etc., are the same as in other lines.

The following lines of engineering science are open as majors for the present:

- Engineering mechanics
- Hydraulic and sanitary engineering
- Steam engineering
- Electrical engineering
- Heating and ventilation engineering
- Railway engineering
- Masonry construction and structural engineering
- Coal mining engineering

The first minor may be any of the above or one of the following fundamental sciences or an authorized combination of two of them:

- Theoretical mechanics
- Mathematics
- Thermodynamics
- Chemistry
- Geology
- Physics (Experimental or mathematical)
- Zoology
- Botany

The second minor should be in other than engineering subjects.

### SCHOLARSHIPS AND FELLOWSHIPS

A number of fellowships and scholarships have been established by the Trustees of the University. To first year graduate students of ability and promise there are open a number of scholarships with a stipend of \$250 each and freedom from tuition, incidental, and laboratory fees. To second and third year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from \$300 to \$500, with freedom from fees. The larger stipends are given only to students who are expected to take their degrees within the year. Each holder of a fellowship or scholarship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois, or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made upon blanks to be obtained from the Dean of the Graduate School. These application forms should be addressed to the Dean of the Graduate School as early as possible in February and not later than the first of March of the academic year preceding that for which the fellowship

is desired. No application will be considered if received later than March first, until after April fifteenth, the date when appointees from the first list of applicants must accept or refuse their appointments.

Persons appointed are notified on April first and must send the Secretary of the Board of Trustees notice of their acceptance or refusal by April fifteenth; and must agree that, if accepted, the appointment will not be resigned in favor of a similar one in any other institution during the year for which it is awarded.

Nominations to fellowships are made on the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself.

Scholarships and fellowships are good for one year, but may be renewed for a second or third year in special cases. An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

#### Research Fellowships in the Engineering Experiment Station

The Engineering Experiment Station is devoted entirely to research. Its purposes are the elevation of engineering education, and the study of problems of special importance to engineers and to manufacturing, railway, mining, and industrial interests.

Fourteen research fellowships have been established in the Engineering Experiment Station. These fellowships are open to graduates of approved technical schools and universities, both American and foreign. There is a stipend of \$500 a year for each fellowship. Applicants to whom these fellowships are awarded are required to agree to hold them for two years, devoting a part of their time to the work of the Engineering Experiment Station. At the expiration of this period, if all requirements have been met, the degree of Master of Science will be conferred.

Application for these fellowships should be made to the Director of the Engineering Experiment Station not later than February first. Candidates must present with their applications full information concerning themselves, including any written or published papers or results of investigation.

#### THE GRADUATE CLUB

The Graduate Club is an unofficial organization of the graduate students and graduate faculty. Its purpose is to furnish an opportunity for those working in different departments to become acquainted with one another and thus counteract the tendency toward narrowness which intense specialization may sometimes induce.

#### THE ILLINOIS HISTORICAL SURVEY

The Illinois Historical Survey is a department of the Graduate School established in 1910 to conduct research in the history of the State of Illinois. The members of the staff, assisted by graduate students, are engaged in the production of scientific studies in Illinois history, and it is expected that the results of these labors will lay a solid basis for the interpretation of the State's past.

The following persons constitute the staff of the Survey for the year 1915-16: Clarence W. Alvord, Ph.D., Professor of History, Director; Ernest L. Bogart, Ph.D., Professor of Economics; John M. Mathews, Ph.D., Assistant Professor of Political Science; Theodore C. Pease, Ph.D., Associate in History; Arthur C. Cole, Ph.D., Associate in History; Jessie J. Kile, A.M., Research Assistant.

# THE LIBRARY SCHOOL

For a description of the *Library Building*, see page 56; for an account of the *libraries* themselves, see pages 60-62; for the *collection in library economy*, see page 66; for *fees*, see page 122.

## GENERAL STATEMENT

The Library School offers a two-year curriculum to students who wish to enter library work as a profession, and certain library courses to students in other schools and colleges of the University of Illinois who may wish to elect them as a part of their course of training. The instruction in the first or junior year covers the generally accepted methods and practises in library work; students who complete this year's work are prepared to accept positions in library service. In the second or senior year emphasis is placed on historical and comparative methods of treatment; new subjects are introduced to give the student the necessary outlook and equipment for responsible positions.

One or two years' training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The time spent in actual practise, under supervision, amounts to about three and a half months, counting seven hours to a working day. Altho stress is laid on simplicity and economy, methods are taught to enable students to work in large libraries where bibliographic exactness is required. Emphasis is laid on the extension of the activities of the public library, and on the importance of cooperation between the library and the schools and other educational and social agencies.

A member of the senior class in any other school or college of the University may, with the approval of the Director of the Library School, elect any course for which he is prepared.

The school also offers to freshmen and sophomores a course on the use of the library and the ordinary reference books, which will help in general reading or study.

## ENTRANCE REQUIREMENTS

Admission to the Library School is conditioned on the presentation of credentials showing that the applicant holds a bachelor's degree in arts or science from the University of Illinois or has had other equivalent training.

Application blanks for admission may be secured from the Director of the School, and these, filled out, should be filed, together with such documentary material as the candidate may offer, showing qualifications for admission, not later than the registration days in September. It is to the candidate's interest to present the application and certificates early, in order that the question of admission may be settled before he comes to the University.

## PROPOSED PRELIMINARY CURRICULUM

Undergraduates who intend, on the completion of their college work, to apply for admission to the Library School, are requested to select their courses so as to conform in general to the following recommended program of studies preparatory to library work.

**Proposed Preliminary Curriculum**

English literature, 5\*; rhetoric, 2  
Latin, 4, in addition to four years of high school Latin  
German, 6, in addition to two years of high school German  
French, 4, in addition to two years of high school French  
Languages begun in college instead of in the high school should be continued for a longer period.  
Medieval and modern European history, 3; history of England, 3; history of the United States, 3  
Economics, 3; political science, 2; sociology, 3  
Philosophy, 2; general psychology, 2  
Zoology, 3; botany, 2; chemistry or physics, 3

The total of this work is 100 semester hours, leaving the equivalent of one year of a four-year course free for work in other subjects or for more work in the subjects named.

**ADVANCED STANDING**

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from another institution offering courses in library economy.

**SPECIAL STUDENTS**

It is the practise of this School to admit as special students only those mature persons, who, tho unable to meet the formal requirements for entrance, are prepared for thoro and advanced work. Such persons must present evidence of possessing the information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirement for entrance, such as the completion of part of a college course, approved library or teaching experience, or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois libraries. Students thus admitted are expected to take all of the curriculum prescribed for those who are candidates for the degree of Bachelor of Library Science, or failing that, as much of the prescribed work as they are prepared for.

**LIBRARY VISITS AND FIELD WORK**

Each year all the students in the School visit the libraries and certain of the book binderies, book stores, and printing establishments of either Chicago and vicinity or St. Louis and vicinity. During this visit, which occupies one week, the students are accompanied by a member of the faculty.

The estimated expense of this visit is about \$20 for each trip. Students are required to present a written report of the week's visit upon their return to the University, as the work forms part of Library 22 and Library 26.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned library, usually a public library, working, as far as practicable, under the same conditions as a member of the staff of that library. Written and oral reports of the month of field work are required, as the work forms part of Library 26. The estimated expense for the month of field work is \$40.

\*The figures after each subject indicate the minimum number of lecture or recitation hours a week which the student should devote to that subject throughout one college year.

**CURRICULUM**

The curriculum is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (\*), which are elective. The degree of Bachelor of Library Science is conferred on a student who has completed the required work in the two years' curriculum, and has received credit in courses amounting to 65 hours.

		JUNIOR YEAR			
FIRST SEMESTER		Hours <sup>1</sup>	SECOND SEMESTER		Hours <sup>1</sup>
Lib. Sc. 2a—Reference Work.....	3		Lib. Sc. 2b—Reference Work.....	3	
Lib. Sc. 3a—Selection of Books.....	2		Lib. Sc. 3a—Selection of Books.....	2	
Lib. Sc. 4a—Practise Work.....	2		Lib. Sc. 4b—Practise Work.....	2	
Lib. Sc. 16—Order and Accession.....	2		Lib. Sc. 7—History of Libraries.....	2	
Lib. Sc. 17—Classification .....	3		Lib. Sc. 19—Trade Bibliography.....	1	
Lib. Sc. 18—Cataloging .....	3		Lib. Sc. 20—Loan Department.....	1	
Lib. Sc. 23a—Library Administration .....	1		Lib. Sc. 21—Printing, Binding, Indexing.....	2	
			Lib. Sc. 22—Library Extension.....	3	
Total .....	16		Lib. Sc. 23a—Library Administration.....	1	
SENIOR YEAR					
Lib. Sc. 6a—Subject Bibliography.....	2		Lib. Sc. 6b—Subject Bibliography .....	2	
*Lib. Sc. 8—Advanced Reference Work.....	2		Lib. Sc. 9—Bookmaking .....	2	
Lib. Sc. 10a—Practise Work.....	4		Lib. Sc. 10b—Practise Work.....	4	
Lib. Sc. 13a—Public Documents.....	2		*Lib. Sc. 13b—Public Documents.....	2	
Lib. Sc. 15a—Seminar .....	2		Lib. Sc. 15b—Seminar .....	2	
Lib. Sc. 24a—Selection of Books.....	2		Lib. Sc. 24b—Selection of Books.....	2	
Lib. Sc. 26a—Library Administration.....	3		Lib. Sc. 25—Advanced Classification.....	1	
Lib. Sc. 27—Bibliographical Institutions.....	1		Lib. Sc. 26b—Library Administration.....	3	
			*Lib. Sc. 28—Practise Work.....	1 to 4	
Total .....	18		Total .....	19 to 22	

**LIBRARY CLUB**

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year.

<sup>1</sup>Semester hours. For definition see page 259.

# THE SCHOOL OF MUSIC

For admission to the School of Music, see the general statement of entrance requirements of the University, pages 71 to 96. For fees, see page 122. For the faculty of the School of Music and description of the courses in Music, see under "Music" in the "Description of Courses," Part III.

## GENERAL STATEMENT

The School of Music offers regular courses leading to the degree of Bachelor of Music, and a teacher's certificate in public school music.

Students who are not working for the degree in music may receive a statement from their instructors upon completing not less than one year of college work.

Classes in ear training meet twice each week. The fundamental principles of music notation are studied thoroly, and the ear is trained to recognize intervals, chords, etc., so that the student may eventually think music. Music students are required to attend these classes.

The sight-singing classes meet twice each week. This work is required of music students.

Choral or orchestral work is required of all students who are taking courses in piano, voice, violin, or organ.

All students majoring in a practical subject are required to take Music 94 (Recital).

A series of lectures and recitals is given each year. Only artists of the best reputation appear. Music students are required to attend.

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The courses in the history of music and musical theory, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments without fee.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Music must offer credit for 130 semester hours, including the prescribed subjects named below, together with an acceptable thesis on a topic related to music.

## CURRICULUM IN MUSIC

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Foreign language, French, German, or Italian	4	Foreign language, French, German, or Italian	4
Mil. 2a—Military Drill (men)	1	Mil. 1—Drill Regulations (men)	1
Mus. 3—Harmony	2	Mil. 2b—Military Drill (men)	1
Mus. 21a—Ear Training		Mus. 4—Harmony	2
Mus. 42a, 52a, or 62a—Piano, Voice, or Violin	4	Mus. 21b—Ear Training	
Mus. 46a, 56a, or 66a—Minor subject	2	Mus. 42b, 52b, or 62b—Piano, Voice, or Violin	4
Phys. Tr. 7a—Gymnasium (women)	1	Mus. 46b, 56b, or 66b—Minor subject	2
Phys. Tr. 1 and 1a—Gymnasium and Hygiene (men)	1	Phys. Tr. 7b—Gymnasium (women)	1
Rhet. 1—Rhetoric and Themes	3	Phys. Tr. 2—Gymnasium (men)	1
Total, Men	17	Total, Men	18
Total, Women	17	Total, Women	17

<sup>1</sup>Semester hours. For definition, see page 259.

## SECOND YEAR

Foreign language, French, German, or Italian .....	4	Foreign language, French, German, or Italian .....	4
Mil. 2c—Military Drill (men) .....	1	Mil. 2d—Military Drill .....	1
Mus. 1—History of Music .....	2	Mus. 2—History of Music .....	2
Mus. 5—Advanced Harmony .....	3	Mus. 6—Advanced Harmony .....	3
Mus. 22a—Ear Training .....	1	Mus. 22b—Ear Training .....	1
Mus. 23a—Sight Singing .....		Mus. 23b—Sight Singing .....	
Mus. 43a, 53a, or 63a—Piano, Voice, or Violin .....	4	Mus. 43b, 53b, or 63b—Piano, Voice, or Violin .....	4
Mus. 46c, 56c, or 66c—Minor subject .....	2	Mus. 46d, 56d, or 66d—Minor subject .....	2
Total, Men .....	17	Total, Men .....	17
Total, Women .....	16	Total, Women .....	16

## THIRD YEAR

Edu. 1—Introduction to Education .....	4	Edu. 10—Technics of Teaching .....	3
Eng. 1—Survey of English Literature .....	4	Eng. 2—Survey of English Literature .....	4
Mus. 7—Counterpoint, Canon, and Fugue .....	3	Mus. 8—Counterpoint, Canon, and Fugue .....	3
Mus. 24a—Sight Singing .....	1	Mus. 24b—Sight Singing .....	1
Mus. 44a, 54a, or 64a—Piano, Voice, or Violin .....	4	Mus. 45b, 55b, or 65b—Piano, Voice, or Violin .....	4
Mus. 46e, 56e, or 66e—Minor subject .....	2	Mus. 46f, 56f, or 66f—Minor subject .....	2
Total .....	18	Total .....	17

## FOURTH YEAR

Eng. 35—The English Drama .....	3	Mus. 10—General Theory .....	2
Mus. 9—General Theory .....	2	Mus. 12—Acoustics .....	1
Mus. 11—Acoustics .....	1	Mus. 27b—Ensemble .....	
Mus. 27a—Ensemble .....	1	Mus. 45b, 55b, or 65b—Piano, Voice, or Violin .....	4
Mus. 45a, 55a, or 65a, Piano, Voice, or Violin .....	4	Mus. 46h, 56h, or 66h—Minor subject .....	2
Mus. 46g, 56g, or 66g—Minor subject .....	2	Mus. 94b—Recital .....	1
Mus. 94a—Recital .....	1	Total .....	11
Total .....	14	Total .....	11

In addition, to make up the prescribed total of 130 hours: Elective, for men, 1 hour; for women, 4 hours. This extra credit may be taken at any time; the election must be approved by the student's adviser.

Practical courses include regular attendance in orchestra and choral society, unless a student is excused by the Director of the School of Music.

## CURRICULUM IN PUBLIC SCHOOL MUSIC

The aim of the curriculum in Public School Music is to prepare competent teachers and supervisors of music for the public schools. Students completing the curriculum are granted teacher's certificates. An opportunity for practise teaching is offered. The curriculum comprises the following prescribed subjects:

FIRST SEMESTER	FIRST YEAR		SECOND SEMESTER	Hours <sup>1</sup>
Mus. 1—History of Music .....	2	Mus. 2—History of Music .....	2	
Mus. 3—Harmony .....	2	Mus. 4—Harmony .....	2	
Mus. 21a—Ear Training .....	1	Mus. 21b—Ear Training .....	1	
Mus. 23a—Sight Singing .....	1	Mus. 23b—Sight Singing .....	1	
Mus. 25—Methods of Teaching .....	4	Mus. 25b—Methods of Teaching .....	4	
Practical Music, major, Piano, or Voice .....	6	Practical Music, major, Piano, or Voice .....	6	
Practical Music .....	2	Practical Music, minor, Voice, or Piano .....	2	
Total .....	18	Total .....	18	

## SECOND YEAR

Edu. 1—Principles of Education .....	4	Edu. 10—Technics of Teaching .....	3
Eng. 1—Survey of English Literature .....	4	Eng. 2—Survey of English Literature .....	4
Mus. 24a—Sight Singing .....	2	Mus. 24b—Sight Singing .....	2
Practical Music, major, Piano, or Voice .....	6	Practical Music, major, Piano, or Voice .....	6
Practical Music, minor, Voice, or Piano .....	2	Practical Music, minor, Voice, or Piano .....	2

Total .....	18	Total .....	17
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<sup>1</sup>Semester hours. For definition see page 259.

\*Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 79.

Advanced students may satisfy a part of the foregoing requirements by examination; in no case, however, is a student permitted to take less than 30 hours of work.

### MUSICAL ORGANIZATIONS

*The University Choral and Orchestral Society* is conducted by the Director of the School of Music, with the assistance of the instructor of violin, and gives a series of concerts throughout the year. The orchestra meets for two hours' rehearsal once a week; it is open to all students who qualify for membership. The chorus meets once a week for rehearsal of choral works. Singers not connected with the University are admitted by examination.

*The Military Band* is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examinations. A second band is also conducted, in order that all students who play band instruments ordinarily well may have an opportunity to play in a band. Each full term of service in the band counts for one term of the required work in military science. After obtaining credit for four semesters' work those who are continued in the band for not less than one year are paid an amount equal to the incidental fees for the year. There is also a reserve band and a trumpet and drum corps.

# THE SCHOOL OF EDUCATION

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## GENERAL STATEMENT

The School of Education was established in 1905 as an organization of the various activities of the University which are concerned with the professional preparation of teachers and supervisors for the public schools. The nucleus of the School is the department of education in the College of Liberal Arts and Sciences. The faculty of the School is made up of the members of this department and of other departments who offer courses intended for the preparation of high-school teachers. The Board of Trustees has approved plans for a building to be used as a laboratory for the School of Education and to include quarters for a training school of secondary grade, and has purchased a site upon which the first wing of this building will be erected.

## THE DEPARTMENT OF EDUCATION

The Department of Education includes four full professors, a principal of the training school, and several assistants. It offers courses in educational history, theory, and practise—see under Education in the General Description of Courses, Part III. Two of the courses (Education 1 and 10) are required of all students who wish to secure the official recommendation of the University for teaching positions in secondary schools—see “Committee on Appointment of Teachers,” page 203. Credits earned in these courses are usually accepted by the State Examining Board in lieu of examinations in pedagogy for county teachers’ certificates; and these and other courses serve to prepare candidates for the examinations in professional subjects required for the State supervisory and high-school certificates—see “Certification of High School Teachers in Illinois,” page 203.

## GRADUATE WORK IN EDUCATION

Graduate work in education is offered to qualified students in the following fields: general educational theory (Professor Bagley); educational administration and supervision and elementary education (Professor Bagley and Mr. Brown); secondary, vocational, and higher education (Professor Johnston and Professor Hollister); educational psychology, including mental tests and clinical psychology, health administration, and school hygiene (Professor Whipple).

The equipment of the department for graduate work comprises: (a) A library of some 20,000 volumes (besides pamphlets), including the Aron Library of 8,000 titles relating largely to European education in the sixteenth, seventeenth, and eighteenth centuries; a collection of documents representing educational development in the United States, including school reports and courses of study and of state and city systems; and a text-book library representing the development of elementary and secondary school texts used in American schools from the beginning of the nineteenth century; (b) an educational museum, containing exhibits of school furniture, apparatus, illustrative material, and representative work of pupils; (c) a laboratory of educational and clinical psychology equipped for mental and physical tests.

**PUBLICATIONS OF THE SCHOOL OF EDUCATION**

The School of Education publishes a series of bulletins comprising (a) reports of the annual High School Conference, the Conferences on Teachers' Institutes, and other meetings and conferences regarding public education held at the University, and (b) reports of investigations and studies by members of the instructional staff and students in the department.

The department of education is unofficially related through the editorial work of its members to the following journals: *The Journal of Educational Psychology* (Baltimore), edited by J. C. Bell, W. C. Bagley, C. E. Seashore, and G. M. Whipple; and *Educational Administration and Supervision* (Baltimore), edited by C. H. Johnston, L. D. Coffman, J. H. Van Sickle, and David Snedden.

**COMMITTEE ON APPOINTMENT OF TEACHERS**

The Committee on Appointment of Teachers recommends qualified graduates of the University for positions as teachers or supervisors in public schools, colleges, and technical schools in response to requests from the school authorities. The Director of the School of Education is chairman of the Committee, and the Secretary of the School is its chief executive officer.

The recommendations of the Committee are made under the following regulations of the University Senate.

1. The University Committee on Appointments is authorized to issue its recommendation, signed by the committee as the agent of the University, in all cases in which it is satisfied with the student's scholarship and ability to teach. The Committee shall regard the scholarship requirements as met if, in addition to carrying the professional courses mentioned in the next paragraph, the student has passed with an average grade of 85 in the courses necessary to constitute a major in the principal subject which he wishes to teach, and in courses aggregating a minimum varying from six to twelve semester hours (according to subject, and at the discretion of the Committee) in each of the other subjects for which he wishes to be recommended. The Committee shall, however, in each case secure the written opinion of the departments concerned in regard to the scholarship of the applicant, and shall view the evidence of scholarship as shown by the records in the light of this opinion; and if there appear to the Committee to be reasons which from their nature cannot be shown by mere records for questioning the scholastic ability of the student, the Committee may in its discretion withhold the recommendation.

2. A candidate must have successfully completed the following courses in the department of education:

a. An introductory course which shall aim (1) to acquaint the prospective teacher with the public-school system as it exists today in the United States, and (2) to present a brief outline of the principles of education. (A four-hour course.)

b. A course in the technics of teaching, accompanied by observation of class-room work in secondary schools, and including a discussion of class-management (routine and discipline), the elements of school hygiene, and the types of school exercises. (A three-hour course.)

3. The Director of the School of Education may, in his discretion, excuse a candidate from the professional courses outlined above, (1) if the candidate is a normal-school graduate or has taken equivalent courses in a normal school or in another college or university; or (2) if the candidate has had at least one year of successful teaching experience. If, at the time of registration with the Committee on Appointments, the candidate has not completed one of the required courses, but is enrolled at that time in the course, a Committee recommendation may be given with the approval of the instructor in charge of the course.

The courses mentioned in Section 2 are (a) Education 1, Introduction to Education (4 hours), and (b) Education 10, Observation and Technics of Teaching (3 hours). Either course may be taken in either semester.

**CERTIFICATION OF HIGH-SCHOOL TEACHERS IN ILLINOIS**

A student who expects to teach in the Illinois high schools should bear in mind that all teachers must be duly certificated. County high-school certificates are granted upon examination by county superintendents, and State high-school certificates upon examination by the State Superintendent. For county high-

school certificates issued without an examination the new certificating law makes the following provision:

"At the option of the county superintendent, a high school certificate may be issued without examination to graduates of a recognized normal school, college, or university, who present within three years after graduation, certified credits in English, pedagogy and six high school subjects (chosen from a list published by the Examining Board) and accompanied by faculty recommendations of ability to teach in the high school." (Section 6.)

The educational courses required for the official recommendation of the University, Education 1 and 10, are commonly accepted as meeting the requirement in pedagogy.

State high-school certificates are granted under the following conditions:

"A four-year high school certificate valid in any high school in the State, for which the requirements shall be: (1) Graduation from a recognized college or university, or the completion of an equivalent preparation. (2) three years' successful teaching, two of which shall have been in the State on a first grade, a high school, or a supervisory county certificate; (3) a successful examination in English, educational psychology, and the principles and methods of teaching, and (4) the preparation of a thesis on one or more secondary school problems, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.

"[Note—Candidates who have had three years of successful experience in teaching, two of which were in Illinois under a first grade certificate and have exchanged the same for a county high school certificate under the new law, meet the requirements of No. 2]" (Circular 72, State Department of Public Instruction.)

Education 1, 10, and 25 embody the materials usually covered by the State examinations in educational psychology and in methods of teaching.

### **CERTIFICATION OF SUPERINTENDENTS AND PRINCIPALS**

The following are the requirements for certification in supervisory work:

"A four-year supervisory certificate valid for supervisory work and for teaching in any district in the State. The requirements for this certificate shall be: (1) Graduation from a recognized high school and from a recognized normal school, or an equivalent preparation; (2) three years' successful supervision, two of which shall have been in this State on a county supervisory certificate; (3) a successful examination in English, educational psychology, sociology, the history of education, and school organization, administration, and supervision, and (4) the preparation of a thesis on one or more problems of school administration, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.

"[Note—Candidates who have had three years of successful experience in teaching, two of which were in Illinois, under a first grade certificate, and have exchanged the same for a county supervisory certificate under the new law, meet the requirements of No. 2.]

#### **LIFE CERTIFICATES**

"At the time of its expiration upon evidence of successful teaching or supervision satisfactory to the Superintendent of Public Instruction, any four-year State certificate enumerated in this Act shall become valid and be endorsed for life. The validity of State certificates now in force and those issued in accordance with this Act, shall be conditioned upon the good behavior of the holder." (Circular 72, State Department of Public Instruction.)

Education 1, 2, 4, 16, 20, and 25 embody the material usually covered by the examination (except in English) for the State supervisory certificate.

### **REQUIREMENTS OF THE NORTH CENTRAL ASSOCIATION**

Students who anticipate teaching in high schools accredited to the North Central Association of Colleges and Secondary Schools should complete courses in education aggregating at least *eleven* semester hours. This requirement of the Association is effective for new teachers after 1915, but is not retroactive. Certain work offered outside the department of education, especially "teachers' courses," may be counted as part of the eleven-hour minimum.

# THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION

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## GENERAL STATEMENT

The School of Railway Engineering and Administration has been established to prepare men for the technical and administrative departments of railroads. The work offered is arranged in five different curriculums, any one of which is designed to occupy four years' time. The curriculums are:

- Railway Civil Engineering
- Railway Electrical Engineering
- Railway Mechanical Engineering
- Railway Administration
- Railway Transportation

The first three of these curriculums are administered by the College of Engineering, and a description of them appears with that of other curriculums offered by this College. Students are admitted to them under the same conditions as to other curriculums of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two curriculums are administered by the College of Commerce and Business Administration; they are described in detail in connection with the other curriculums of this College. Students are admitted to them under the same conditions as to other curriculums of the College of Commerce and Business Administration.

It is the purpose of each of these curriculums to add to a foundation of general discipline and training specialized training for those who look forward to careers in railway service.

## MILITARY SCIENCE

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The military instruction is under the charge of an officer of the United States Army. The course has special reference to the duties of officers of the line. A supply of arms and ammunition is furnished by the War Department, including 1852 U. S. magazine rifles (model 1898 and 1903), accoutrements for infantry, and two pieces of field artillery.

Every male student under twenty-five years of age, able to perform military duty, and not excused for sufficient cause, is required to drill twice each week until he has gained credit for four semester hours. He is also required to study drill regulations for infantry, and to recite upon the text once a week until he gains credit for one semester hour. The standings in study and drill are placed on record with other class credits; one semester of recitations and drill counts two hours, and the three remaining semesters of drill three hours. This work is required for graduation in all the undergraduate colleges of the University. Two hours' credit in Military is given to men who complete the course of instruction at the student Military Instruction Camps, and obtain a certificate from the commanding officer to that effect.

The Cadet Brigade consists of two regiments of infantry (24 companies), a foot battery of field artillery, signal company, engineer company, and hospital company. There are 2140 cadets enrolled in the military department, including the band of 165 men, and 114 commissioned officers.

The artillery, signal, engineer, and hospital companies are organized mainly from those students of the second year or sophomore class who have made more than an average standing in the work of the previous year.

A special military scholarship, good for one year, is open to each student who attains the grade of commissioned officer; its value is paid to the holder at the close of the year. Appointments in the regiment are made on the nomination of the commandant of cadets confirmed by the Council of Administration.

Towards the close of the year a committee appointed by the President of the University examines candidates for nomination to the Governor of the State to receive commissions as brevet captains in the State militia. Candidates must be members of the senior class in full standing at the time of this examination; must have completed the course of military studies; must have served two semesters as commissioned officers; and must be approved by the Council of Administration as having good reputations as scholars, officers, and gentlemen.

The uniform of the sophomore companies is cadet gray; that of the freshman companies the olive drab, woolen service, like that used by the United States Army. A deposit (\$14.20) covering the price of the uniform is required from each student upon registration. Additional equipment costing \$6.75 must be purchased at the same time.

The University military band is composed of students, and every full term of service therein is counted as one term of drill. Those who play in the band after having earned their five military credits necessary for graduation have their incidental fees remitted at the end of each year. Besides giving several

concerts during the year, the band furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination.

#### Division of Military Information

A division of military information has been established to compile and disseminate military information. The division has on file copies of the regulations for the various branches of the army; general orders, circulars, and bulletins of the war department; army regulations, and rosters of the officers of the army and the navy. It also has data concerning the military schools and land grant colleges of the country. Information on any of these subjects is given freely to all who may apply.

# PHYSICAL TRAINING

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## FOR MEN

The object of the work in this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper inter-collegiate sports. Physical training is compulsory for all freshmen. Regular classes are formed in swimming and fencing and for drill on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Training, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Men's Gymnasium, see page 57.

## FOR WOMEN

The object of the work of this department is to preserve and improve the general health, carriage, and coordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygienic, and recreative exercise, including free and light gymnastics, marching, simple steps, games, and Maypole. Tennis, hockey, basket-ball, volley-ball, German-ball, and quoits are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consist of black serge bloomers, white cotton blouse, black tie, and gymnasium shoes.

The swimming pool is open daily, except Saturday, from 10 to 12 a. m., and from 2 to 5:30 p. m. The regulation swimming suit of one piece must be made of cotton jersey or other cotton material.

For a description of the Woman's Gymnasium, see under Woman's Building, page 57.

## THE SUMMER SESSION

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EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY  
WILLIAM CHANDLER BAGLEY, Ph.D., Director of the School of Education, and  
Director of the Summer Session

### STAFF OF INSTRUCTION—1915

WILLIAM CHANDLER BAGLEY, Ph.D., Professor of Education  
CLARENCE WILLIAM BALKE, Ph.D., Professor of Inorganic Chemistry  
DANIEL OTIS BARTO, B.S., Associate in Poultry Husbandry  
PHILIP STEPHAN BARTO, Ph.D., Instructor in German  
PAUL LEVERN BAYLEY, A.M., Assistant in Physics  
GEORGE DENTON BEAL, Ph.D., Instructor in Chemistry  
ERNEST LUDLOW BOGART, Ph.D., Professor of Economics  
SIMEON JAMES BOLE, A.M., Associate in Pomology  
CLARENCE VALENTINE BOYER, Ph.D., Associate in English  
HOWARD VERNON CANTER, Ph.D., Assistant Professor of Classics  
DAVID HOBART CARNAHAN, Ph.D., Associate Professor of Romance Languages  
CHARLES SERAPHIN CARRY, Assistant in Romance Languages  
CLARENCE E. CARTER, Ph.D., Professor of History, Miami University  
LOTUS DELTA COFFMAN, Ph.D., Professor of Education  
WILLIAM TRUMAN CRANDALL, M.S., Associate in Milk Production  
RUFUS CRANE, A.B., B.S., Instructor in General Engineering Drawing  
MERVIN JAMES CURL, A.M., Instructor in English  
CLARENCE GEORGE DERICK, Ph.D., Assistant Professor of Chemistry  
DANIEL KILHAM DODGE, Ph.D., Professor of the English Language and Literature  
JAMES MERION DUNCAN, Assistant in Pattern Making  
KARL JOHN THEODORE EKBLAW, M.S., Associate in Farm Mechanics  
NEWTON EDWARD ENSIGN, A.B., B.S., Instructor in Theoretical and Applied  
Mechanics  
JUSTUS WATSON FOLSOM, D.Sc., Assistant Professor of Entomology  
THOMAS WALTON GALLOWAY, Ph.D., Professor of Zoology, James Millikin  
University  
HARRY LOVERING GILL, Instructor in Track Athletics  
OLAF HAROLD GLIMSTED, Assistant in Physical Training for Men  
LEWIS J. HAAS, Instructor in Art Metal Work  
EDWARD CAREY HAYES, Ph.D., Professor of Sociology  
FELIX EMIL HELD, Ph.D., Associate Professor of German, Miami University  
WILLIAM F. HENDERSON, A.B., Assistant in Zoology, James Millikin University  
MARY HILL, Assistant in Art and Design  
DAVID PRESTON HOLLIS, Assistant in Chemistry  
HORACE ADELBERT HOLLISTER, A.M., Professor of Education and High School  
Visitor  
LEONA HOPE, Assistant in Household Science  
B. SMITH HOPKINS, Ph.D., Associate in Chemistry

- ORREN CHALMER HORMELL, A.M., *Professor of History, Bowdoin College*  
CHARLES FREDERICK HOTTES, Ph.D., *Professor of Botany*  
GEORGE A. HUFF, *Director of Physical Training for Men*  
CHARLES HUGHES JOHNSTON, Ph.D., *Professor of Education*  
HARRY STUART VEDDER JONES, Ph.D., *Assistant Professor of English*  
LLOYD THEODORE JONES, Ph.D., *Instructor in Physics*  
RALPH R. JONES, *Basket Ball Coach*  
OLIVER KAMM, Ph.D., *Assistant in Chemistry*  
AUBREY J. KEMPNER, Ph.D., *Instructor in Mathematics*  
CHARLES TOBIAS KNIPP, Ph.D., *Assistant Professor of Physics*  
ARMAN HAJMAN KOLLER, Ph.D., *Instructor in German*  
JACOB KUNZ, Ph.D., *Assistant Professor of Physics*  
ERNEST MICHAEL RUDOLF LAMKEY, A.M., *Assistant in Botany*  
GRACE LINDER, *Assistant in Household Science*  
ALBERT HOWE LYBYER, Ph.D., *Associate Professor of History*  
CHARLES GEORGE MACARTHUR, A.M., *Instructor in Chemistry*  
HARRISON McJOHNSTON, A.M., *Instructor in Business English and Salesmanship*  
WILFORD STANTON MILLER, A.M., *Assistant in Education and Secretary of the  
School of Education*  
GERTRUDE EVELYN MOULTON, A.B., *Director of Physical Training for Women*  
JONAS BERNARD NATHANSON, A.M., *Assistant in Physics*  
WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor of the Classics*  
JOSEPH C. PARK, *Director of Industrial Education, State Normal School, Oswego,  
New York*  
WILLIAM ALVAH PETERSON, B.S., A.M., *Assistant in Entomology*  
CHARLES MARSHALL POOR, Ph.D., *Instructor in German*  
OSCAR ALAN RANDOLPH, M.S., *Assistant in Physics*  
HAROLD ORDWAY RUGG, C.E., Ph.D., *Assistant in Education*  
HIRAM THOMPSON SCOVILL, A.B., *Instructor in Accountancy*  
GEORGE WALLACE SEARS, Ph.D., *Instructor in Chemistry*  
FRED B. SEELY, B.S., *Instructor in Theoretical and Applied Mechanics*  
JAMES BYRNIE SHAW, D.Sc., *Assistant Professor of Mathematics*  
STUART PRATT SHERMAN, Ph.D., *Professor of English and Chairman of the  
Committee of the Department of English*  
CONSTANCE BARLOW SMITH, *Assistant Professor of Sight Singing, Ear Training,  
and Public School Music*  
LOUIE HENRI SMITH, Ph.D., *Professor of Plant Breeding in the College of  
Agriculture, and Chief in Plant Breeding in the Agricultural Experiment  
Station*  
WILLIAM HERSCHEL SMITH, M.S., *Instructor in Animal Husbandry*  
RAFAEL ARCANGEL SOTO, B.S., *Assistant in Romance Languages*  
MARGARET BEAUMONT STANTON, B.S., A.M., *Instructor in Household Science*  
RUSSELL McCULLOCH STORY, A.M., *Instructor in Political Science*  
GRACE SWAN, *Assistant in Music*  
CHARLES MANFRED THOMPSON, Ph.D., *Associate in Economics*  
ALEX VALLANCE, M.E., *Instructor in Theoretical and Applied Mechanics*  
GUSTAF ERIC WAHLIN, Ph.D., *Associate in Mathematics*  
HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor of Chemistry*  
GUY MONTROSE WHIPPLE, Ph.D., *Associate Professor of Education*  
WILLIAM HAROLD WILSON, A.M., *Assistant in Mathematics*

CHARLES HENRY WOOLBERT, A.M., *Associate in English*  
HENRY CHARLES ZEIS, A.B., *Assistant in Mathematics*  
ADOLF EDUARD ZUCKER, A.M., *Assistant in German*  
ROBERT CARL ZUPPKE, Ph.B., *Instructor in Physical Training*

### GENERAL STATEMENT

The Summer Session of the University of Illinois for 1915 opened on June 21 and closed on August 13, making a term of *eight weeks*. The Summer Session of 1916 will open on June 19 and close on August 11.

All the courses extend through the eight weeks. Students who wish to remain for only six weeks may obtain from the Director of the Session a certificate of such attendance, but university credit will not be given for six-weeks courses.

Students may register for courses aggregating eight credit hours or less.

### PURPOSE

The primary purpose of the Summer Session is to meet the needs of teachers in the public schools who wish to spend a part of the summer in study or investigation. The greater number of courses offered are designed for high-school teachers, supervising officers, and teachers of special subjects (art, music, manual training, domestic science, agriculture), and for college instructors, school supervisors, and principals who are working for advanced degrees. At the same time, students who may not fall within these groups are welcomed at the Session, and several courses of a more general nature are provided to meet their needs.

### ADMISSION

Admission in regular status to courses in the Summer Session for which university credit is granted is limited to students who could be regularly admitted to the college of the University (Liberal Arts and Sciences, Commerce and Business Administration, Engineering, or Agriculture) in which they would be registered in the regular session.

In order to meet in full the entrance requirements for any one of these colleges, a student must obtain credit, either by passing entrance examinations, or by presenting certificates of work completed in accredited secondary schools or other recognized schools, for 15 units of high-school work, or the equivalent, in subjects accepted for admission to the University, including in the case of each college certain subjects especially prescribed for admission to that college. (See pages 71-96.)

Admission to courses which give university credit, as *special students, not candidates for a degree*, may be granted to persons 21 years of age, or over, subject to the general regulations of the University relating to special students.

### REGISTRATION

Students will present themselves for registration on Monday, June 19, 1916.

### FEES

A tuition fee of twelve dollars (\$12) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses and to all special lectures. An extra laboratory fee is charged in some courses

for materials used. Any single course may be taken for a fee of six dollars (\$6) and the laboratory fee, if there be one. A single course is understood to mean not more than two and one-half credit hours.

### SCHOLARSHIPS

By ruling of the Board of Trustees of the University, all high school teachers in Illinois, and all other teachers in the State who are qualified to matriculate in the University as regular students, are entitled to Summer Session scholarships, exempting them from payment of the tuition fee. To matriculate regularly in the University, one must either pass the entrance examinations, or present a certificate from an accredited high school or other evidence of having completed the requisite amount of preparatory work.

The Board of Trustees has extended the scholarship privilege also to persons graduated from the Illinois State Normal Schools during the academic year preceding the session in which the scholarship is desired, and to persons (otherwise qualified) who have not been teachers, but who are under contract to teach in the State during the coming year.

Application blanks for scholarships may be obtained by addressing the Director.

### GRADUATE WORK IN THE SUMMER SESSION

The Summer Session places emphasis on graduate courses leading to the master's degree. The department related to high school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the cooperation of a department of the University, it may be possible to count the work toward the master's degree.

### SUMMER COURSES IN LIBRARY TRAINING

Beginning in the summer of 1911, the Library School has conducted each year a summer session continuing for six weeks, to which were admitted only those actually employed as librarians, or library assistants, or teacher-

librarians, or under definite appointment to serve in such positions. In 1915 the requirement of graduation from a high school was added. The curriculum was planned to meet especially the needs of workers in public libraries and in high school libraries of Illinois and no tuition fee was charged students entering from this State; students entering from libraries in other states paid a tuition fee of \$12. The work was under the general direction of the faculty of the Library School, and the instruction was given by members of the faculty, supplemented by lectures by neighboring librarians. No university credit was given for the work as offered in 1915.

The work occupied the whole time of the student. The number of lectures in each subject was approximately as follows: Cataloging, 20; classification and book numbers, 13; book selection, 12; administration of small libraries, 10; reference work, 10; work with children, 10; loan systems, order, accession and shelf work, binding and repairing, 14.

The Library courses are not offered in connection with the Summer Session, but as an independent undertaking of the Library School.

### PLAYGROUND WORK AND COACHING

In addition to the regular gymnasium work, special courses in coaching high school athletes were offered under the general direction of George A. Huff, Director of Physical Training for Men. This work was added because of the increasing demand for trained men to direct high school athletics. A course in plays and games designed for teachers who coach high-school girls or supervise grammar school games, was offered by Miss Gertrude Moulton, Director of Physical Training for Women.

Courses were offered in baseball coaching (Mr. Huff), football coaching (Mr. Zuppke), basketball coaching (Mr. Jones), and track coaching (Mr. Gill). These courses were particularly adapted to high school teachers and principals who are engaged for part of their time in coaching athletic teams. The courses were so arranged that a student might, if he desired, devote his entire program to this work.

### DESCRIPTION OF COURSES

For a description of the courses offered in the Summer Session, see the General Description of Courses, beginning on page 257.

# THE COLLEGE OF LAW

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For the *faculty* of the College of Law, see page 357; for the *courses* in law, page 357; for *fees* and *expenses*, page 122.

## GENERAL STATEMENT

It is the aim of the College to furnish its students with such a training as will fit them for the practise of the law. A mere knowledge of what the law is will not suffice. The student must learn the reasons which have made it what it is. These can be mastered only by studying the law in the light of its historical development. No special course is offered on the history of the law; but it is sought to present each subject so that the principles peculiar to it may be historically understood. It is also the aim of the College that the courses shall be so presented as to familiarize the student with legal methods of reasoning and to equip him with legal habits of thought. It is believed that the case method of instruction, properly understood and applied, is best adapted to accomplish these objects.

## ADMISSION

For admission as a regular student and candidate for the degree of Bachelor of Laws, an applicant must be matriculated and have 60 hours of credit in a college of this University; or have completed two full years of work as given at another college or university of recognized standing; or have received by transfer 60 hours of university credit here.

The faculty of the College of Law may, in its discretion, prescribe from time to time subjects which shall be required as part of the preliminary college work, subject to approval by the University Senate.

A student who is 21 years of age and is entitled to admission as a regular student to another college of this University, will be admitted as a special student in the College of Law. If he attains in the courses of the first year an average grade of 80 or over, he will be admitted to regular standing, and he may receive the degree of Bachelor of Laws if in all the courses he presents for the degree his average grade is 80 or more.

NOTE: The above is not intended to abrogate the present rule in regard to the admission of special students.

## SPECIAL STUDENTS

Students twenty-one years of age, or over, who are not able to satisfy the regular requirements for admission, but who have had a preliminary education which would entitle them to take the Illinois State Bar Examination, may, by permission of the faculty, be admitted without examination as special students, but no such student may be a candidate for a degree. In exceptional cases, other persons may, by permission of the faculty, be admitted as special students.

No one may continue as a special student for more than two years except by special permission of the faculty, application for which should be made through the Dean.

## ADVANCED STANDING

After matriculating, an applicant may obtain advanced standing (1) by transfer of credits from another accredited law school upon presentation of a certificate of honorable dismissal and a certified record of work done; or (2) by examination taken at the time of entrance to the College of Law in first year subjects only.

## SUGGESTED PREPARATORY CURRICULUM

The following schedule of studies is recommended by the faculty of the College of Law for students taking two years in the College of Liberal Arts and Sciences to meet the requirement for admission to the College of Law:

FIRST SEMESTER		SECOND SEMESTER	
	Hours <sup>1</sup>		Hours <sup>1</sup>
Foreign language.....	4	Foreign language .....	4
History 2a.....	3	History 2b.....	3
Military, 2a.....	1	Mathematics 2 .....	3
Phys. Training 1 and 1a.....	1	Military 1 and 2b.....	2
Rhetoric 1.....	3	Physical Training 2 .....	1
Science .....	<u>5</u>	Rhetoric 2.....	3
Total .....	<u>17</u>	Total .....	<u>16</u>
SECOND YEAR			
Economics 1.....	5	Economics 3.....	3
History 3a.....	3	English 20.....	4
Military 2c.....	1	History 3b.....	3
Political Science 1.....	3	Military 2d .....	1
Science or foreign language.....	<u>5 or 4</u>	Political Science 3.....	3
		Philosophy 1.....	3
Total .....	<u>17 or 16</u>	Total .....	<u>17</u>

The courses in military and physical training, Rhetoric 1-2, and eight hours in foreign language are required of freshmen in the College of Liberal Arts and Sciences. Latin is strongly urged for all students intending to study law; but those who have not had the necessary preparation for college courses in Latin should substitute a modern language, preferably French or German.

## COMBINED CURRICULUM IN LIBERAL ARTS AND SCIENCES AND LAW

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. (See page 138.)

### METHOD OF INSTRUCTION

Courses in substantive law are taught by analyzing and comparing cases in case books. References, however, are constantly made to leading text books, and they are recommended and in certain courses required for collateral reading.

Courses in the law of procedure are taught from text books, supplemented by the examination of statutes and adjudged cases, and students are brought into close touch with actual practise, both by the method of instruction in these courses and by means of the Moot Court.

The instruction gives a training in the common law, which constitutes a proper foundation for the practise of law in any state.

The faculty of the College is impressed with the idea that a state university should teach the law of the state which supports the school, and to that end,

<sup>1</sup>Semester hours. For definition see page 259.

without neglecting the general principles that lie at the foundation of the common law, attention is given in all courses to grounding the student in the law as determined by the courts of Illinois. Throughout the curriculum the students are required to consult Illinois decisions and statutes, which are made the basis of discussion in class by students and instructor. In the Moot Court and through the course in Illinois procedure, attention is paid to the rules of pleading and practise that obtain in the State of Illinois.

### MOOT COURT

The sessions of the Moot Court are held every Monday afternoon of the first semester for the third year class; every Tuesday afternoon of the first semester for the second year class; and every Monday afternoon of the second semester for the second and third year classes together. The Court is presided over by the Dean, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. It is the purpose to have the workings of the Moot Court parallel proceedings in the various courts of the State. Students are trained in the preparation of legal documents and in the trial of cases, both civil and criminal.

The Moot Court Bulletin is published every other week of the college year, and in this are printed the statements of cases, the briefs of opposing counsel, and the opinions of the presiding judge.

### THE LAW LIBRARY

The Law Library contains 18,500 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District Court reports; the English reports; the Irish reports; the Scotch Appeal Cases; the Current Canadian and Australian reports, together with complete reports of several of the Canadian provinces; the statutes of the various states; digests of the state reports; several sets of special reports, such as the American Reports, American State Reports, American Decisions, Lawyers' Reports Annotated, and American Cases Annotated; complete National Reporter System; all the great Encyclopedias and Digests; and a collection of text books and legal periodicals.

### REQUIREMENTS FOR GRADUATION AND DEGREES

The degree of Bachelor of Laws will be granted to all regularly matriculated students who complete all the courses in the first year list; course 12a-12b (second year); and enough of the other courses offered to make 84 hours of credit.

#### Degree of Doctor of Law

The degree of Doctor of Law (J.D.) will be granted to students who comply with the following conditions:

1. Complete the work required for the degree of Bachelor of Laws.
2. Secure a bachelor's degree in arts or science at least two academic years prior to the completion of the course for the degree of Bachelor of Laws.
3. Obtain a minimum average grade of 85 in the College of Law.
4. Present a thesis approved by the faculty of the College of Law, in accordance with the requirements hereinafter set out.

### Rules Concerning Theses

The following are the rules concerning theses presented for the degree of Doctor of Law: (1) The thesis must be on a subject approved by the Dean of the College of Law after consultation with him as to the proposed method of treatment. (2) The subject of the thesis must be filed with the Secretary on or before December 20. (3) The thesis must be typewritten on paper 8½x11 inches, with at least one inch margin at the top, bottom, and sides. (4) It should contain not less than 4,000 nor more than 10,000 words. (5) In citing cases, names of parties, volume, page, and year should be given. Citations are not to be counted in determining the number of words. The student is expected to exhaust the cases decided during the period covered by his thesis, and to state the period for which the cases have been examined. (6) The thesis must be delivered to the Secretary of the faculty not later than May 1.

The thesis may then be returned to the writer for revision, or if unsatisfactory, it may be rejected altogether. If returned for revision it may be rejected after being revised. If accepted it will be filed in the Law Library, and may be published by the College of Law or by the University.

### CERTIFICATE FOR ADMISSION TO THE ILLINOIS STATE BAR EXAMINATION

Any student altho not a candidate for a law degree, if he has taken at least ten hours a week for the period of three academic years, from among the courses offered, is entitled to a certificate thereof from the University, which certificate satisfies the requirements as to legal studies prescribed by the Supreme Court of the State of Illinois for admission to the bar.

### CURRICULUM LEADING TO THE DEGREE OF LL.B.

#### First Year

FIRST SEMESTER: Contracts (Law 1a); Torts (Law 2a); Criminal Law (Law 5); Personal Property (Law 6); Introduction to the Study of Law (Law 37).

SECOND SEMESTER: Contracts (Law 1b); Torts (Law 2b); Real Property (Law 3); Domestic Relations (Law 7); Agency (Law 11).

#### Second or Third Year

FIRST SEMESTER: Real Property (Law 10); Agency (Law 11); Equity (Law 12a); Brief Making (Law 35a); Public International Law (Law 30); Sales (Law 9); Damages (Law 13); Bills and Notes (Law 15); Partnership (Law 19); Insurance (Law 28).

SECOND SEMESTER: Equity (Law 12b); Evidence (Law 8); Equity Pleading (Law 20); Moot Court (Law 35b); Carriers (Law 14); Wills (Law 18); Trusts (Law 16); Municipal Corporations (Law 24); Future Interests in Property (Law 27).

#### Third Year

FIRST SEMESTER: Illinois Procedure (Law 4a); Constitutional Law (Law 22); Moot Court (Law 36a); Mortgages (Law 23); Bankruptcy (Law 25).

SECOND SEMESTER: Private Corporations (Law 17); Suretyship (Law 21); Constitutional Law (Law 33); Moot Court (Law 36b); Conflict of Laws (Law 31).

**PRIVILEGES OF STUDENTS**

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Liberal Arts and Sciences and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University.

**SCHOLARSHIP PRIZES**

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four of \$50 each and four of \$25 each, available in discharge of tuition fees.

The American Law Book Company of New York offers an annual prize consisting of the Students' Edition of CYC, to be awarded to the member of the senior class making the best average during his senior year.

Callaghan & Company, Law Publishers, of Chicago, offer an annual prize consisting of the Cyclopedic Law Dictionary, to be awarded to the member of the second year class making the best average during that year.

# THE COLLEGE OF MEDICINE

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For the *faculty* of The College of Medicine, see page 35; for a description of the *building*, see page 58.

## LOCATION

The College buildings are located in the city block lying between Harrison, Congress, Honore, and Lincoln streets, in Chicago.

## CLINICAL FACILITIES

### Dispensary

The Dispensary is divided into ten departments: medicine, pediatrics, orthopedics, laryngology, dermatology, ophthalmology, gynecology, neurology, and genito-urinary diseases. These departments occupy the first floor and part of the second floor of the college building. Connected with them are the Roentgen laboratory and the dispensary laboratory, which is devoted to experimental and research work. The average number of patients treated annually is twenty-three thousand.

Dispensary instruction is given in the third and fourth years; the subjects of medicine, surgery, orthopedics, laryngology, and genito-urinary diseases in the third year, and the subjects of pediatrics, dermatology, neurology, ophthalmology, and gynecology in the fourth year. The larger departments devote two hours and the smaller departments one hour daily to this work. Three weeks' service is given by each department in each semester, so that the student receives a total of thirty-six hours in the larger departments and eighteen hours in the smaller departments.

### Amphitheater Clinics

More than six hundred clinics besides the dispensary clinics are given each year. Practically all diseases seen in the temperate zone are demonstrated and all the operations of surgery are performed. Fourth year students are required to examine and diagnose many cases and to assist in the operations.

Students are prohibited from doing work that interferes in *any* way with the fulfillment of the requirements of the curriculum. Unofficial clinical work may not be substituted for the official clinical requirements.

### Hospital Clinics

The West Side Hospital, containing one hundred and forty-nine beds, five operating rooms, including a clinical amphitheater having a seating capacity of seventy-two, and a laboratory connected with the college by a corridor.

The University Hospital, corner Ogden avenue, Congress and Lincoln streets, opposite the College, contains ninety-two beds, two operating rooms, a laboratory, an X-ray department, and a clinical amphitheater of seventy-five seats.

These institutions are located near the College and certain clinical facilities, furnished by them, are open to its students.

Within half a block of the College is the Cook County Hospital, the chief free hospital in Chicago. During the past year it has cared for thirty thousand patients. In this hospital is conducted much of the clinical instruction of the College. Medical appointments in this institution are made each year by the Civil Service Board. The internes, sixty-four in number, and externes are selected each spring by competitive examination. Only graduates of medical colleges of Cook County are eligible. The internes serve eighteen months in surgical, medical, and obstetrical work, and receive their board and laundry and have rooms in the hospital.

In addition to Cook County Hospital there are more than sixty public and private hospitals in Chicago, each appointing from two to four internes annually.

The students of this College are required to attend the clinics of the Cook County Hospital during their third and fourth years. The hospital tickets cost \$5.00 each, and are for sale at the office of the Warden. They admit the holders to all clinics and autopsies and to all public operations and lectures.

The County Morgue is located in the hospital grounds, and daily post-mortems are held by the pathologists of the hospital. Attendance is required during two years.

Members of the Faculty are connected with and give clinical instruction, to which students are admitted under certain conditions, in the following hospitals:

Cook County Hospital	St. Luke's Hospital
West Side Hospital	Michael Reese Hospital
University Hospital	St. Joseph's Hospital
Augustana Hospital	North Chicago Hospital
St. Mary's Hospital	

All students of the fourth year attend clinics in a number of the important hospitals in the city, in small groups every Wednesday forenoon during the year. Those members of the fourth year class who have maintained satisfactory records for scholarship and attendance, and who have taken the summer term, are selected to act as externes during the hours from 8 a. m. to 12 m. in a number of the best hospitals in the city during the entire year.

#### THE QUINE LIBRARY

The library of the College of Medicine, named in honor of Dr. William E. Quine, for many years the Dean of the College and now Professor of Medicine, *Emeritus*, occupies the east end of the second floor of the Medical Building. This library contains 14,000 bound volumes, besides pamphlets and reprints and files of 250 American, German, English, French, and Italian journals. It is open from 9 to 5 daily, except Sundays and legal holidays.

This collection of books and periodicals is in charge of a librarian who is constantly present to assist and instruct students in the use of a technical library.

## ADMISSION

Applicants for admission to the College of Medicine are required to offer:

I. Four years' work in an accredited high school, or the equivalent, comprising fifteen (15) units\* of secondary credit and including prescribed subjects as follows:

English .....	3 units
Algebra .....	1 unit
Plane geometry .....	1 unit
German, French, Latin, or Greek.....	2 units
American history and civics.....	1 unit
Electives .....	7 units
 Total .....	 15 units

II. Two years' work in a recognized college or university, comprising not less than sixty (60) semester hours† and including prescribed subjects as follows:

Physics .....	8 hours
Chemistry .....	8 hours
Biology .....	8 hours
German or French .....	6 hours
Electives .....	.30 hours
 Total .....	 60 hours

Either the secondary or the collegiate requirements may be satisfied (a) by certificate or (b) by examination.

Secondary credits will be accepted by certificate from the following sources:

(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.

(2) From schools accredited by the North Central Association of Colleges and Secondary Schools.

(3) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.

(4) From high schools and academies registered by the regents of the University of the State of New York.

(5) From schools approved by the New England College Entrance Certificate Board.

(6) From the state normal schools of Illinois and other normal schools having equal requirements for graduation.

Secondary credits may be made by examination.

(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For programs of these examinations, see pages 81-82.

\*A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise. In general, two hours in laboratory, shop, or drawing room are considered equivalent to one hour of recitation.

†A semester hour is a class period of one hour a week for one semester, or the equivalent in laboratory, shop, or drawing room.

(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. In 1916 these examinations will be held September 20-22. Programs may be had by applying to the Secretary of the College of Medicine, Congress and Honore Streets, Chicago. The subjects offered will be the same as those included in the list on pages 74 and 75. For a description of the ground covered in the several subjects see pages 89 to 96.

(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 77.

(4) In the examinations conducted by the Regents of the University of the State of New York.

*Collegiate credits* will be accepted by *certificate* from recognized colleges which require for admission the completion of at least 14 units of high school work in an accredited high school, or the full equivalent thereof, and for graduation, in addition, four years of college work; or may be made by *examination* in the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. *Special arrangements must be made in advance with the Registrar for examinations in collegiate subjects.*

Students are strongly urged to acquire such an elementary knowledge of Latin as may be obtained in four or five years' work in school or college.

It will be noted that a properly prepared student of good ability can complete the minimum prescriptions in collegiate work within two years and still have considerable time for the study of language, history, economics, psychology, etc.—all subjects of which it is eminently desirable that the future physician should know something.

The above represent the minimum requirements for admission to the College of Medicine. It is strongly urged that students shall have completed at least three years, or, if possible, four years, in a standard college before taking up the study of medicine.

#### **ADVANCED STANDING**

The University will accept scholarship and time credits for work done in medical colleges having standards equal to those of the College of Medicine of the University of Illinois, in so far as this work coincides with or is the full equivalent of the courses prescribed by the University.

Students presenting credentials from such medical colleges will be exempt from examination in so far as the credentials cover the work of the year or years for which the applicant seeks to be credited. Every such student must present a letter of honorable dismissal from, and be eligible for promotion in, the college in which he has pursued his medical studies and must comply with the requirements for such promotion in the University of Illinois.

#### **Entrance Requirements for Upper Classes**

Candidates for admission to advanced standing must in all cases satisfy the entrance requirements which were met by the classes which they wish to enter as follows:

For the *sophomore* and *junior* classes, the present entrance requirements of the College as outlined above.

For the *senior* class, (1) 15 units of high school work, including English, 3 units; algebra, 1 unit; plane geometry, 1 unit; German, French, Latin or Greek,

2 units; American history and civics, 1 unit; physics, 1 unit; and electives, 6 units; and (2) one year—i. e., thirty semester hours—in liberal arts and sciences in a recognized college or university.

### CONDITIONS

For the year beginning in October, 1916, conditions may be permitted as follows:

*For the Freshman, Sophomore, and Junior classes*—6 hours in college French or German, or 8 hours in collegiate electives. No conditions can be permitted in high-school subjects or in the prescribed college physics, chemistry, or biology.

*For the Senior class*—4 collegiate hours. No conditions can be permitted in high-school subjects.

### ADMISSION AS SPECIAL STUDENTS

The general rule of the University will apply to the College of Medicine: Persons over twenty-one years of age, *not candidates for a degree*, may, on special approval of the dean, be admitted to classes for which they are prepared.

### REGISTRATION

Students are required to register in the office of the Secretary immediately upon the opening of the term for the work of that term, and credit will be allowed only in the branches in which the students are registered. Students are registered in the order in which their fees are paid. Registration of students closes October 7.

### COLLEGIATE YEAR

The collegiate year of 1915-1916 consists of a session of thirty-seven weeks, beginning October 1, 1915, and ending June 14, 1916. Each year is divided into two semesters of eighteen and nineteen weeks respectively. Attendance upon the full session is required in order to secure credit for a year's work, and attendance upon four full sessions is required for graduation.

### FEES AND EXPENSES

Fees—	First Year	Second Year	Third Year	Fourth Year
Matriculation .....	\$ 5.00	.....	.....	.....
Registration .....	.....	\$ 5.00	\$ 5.00	\$ 5.00
General ticket .....	120.00	120.00	140.00	155.00
Laboratory .....	20.00	20.00	5.00	.....
	_____	_____	_____	_____
	\$145.00	\$145.00	\$150.00	\$160.00

Note—Dissections, \$5.00 a part. County Hospital ticket, \$5.00. Maternity fee, Chicago Lying-In Hospital, \$15.00.

No fees are charged regular students for special courses or quizzes. Under no circumstances are instructors, dispensary physicians, or professors allowed to receive a fee for instruction or service.

Fees charged special students are based on the amount of work taken.

Alumni are admitted, without charge, to all regular courses except in laboratory work in which a charge is made for material actually used.

The Board of Trustees reserve the right to change the fees at any time.

### **Microscopes**

Each student is required to have a microscope. Provision has been made whereby the student can purchase a microscope at reduced rates or make payment in annual installments. If a student be unable to purchase a microscope the College will rent him one for his exclusive use at the rate of \$2.50 or \$4.00 a semester, the rate depending upon the equipment of the instrument.

### **Living Expenses**

The expense of living in Chicago is less than in most other large cities. From twenty-five to thirty-five dollars a month may be regarded as adequate for ordinary living expenses, exclusive of books, clothing, railroad fare, and miscellaneous needs.

The expense for books varies between \$15.00 and \$25.00 a year. The instructors, at the beginning of each course, direct their students in regard to the purchase of text-books.

### **Scholarships**

Through the generosity of the late Prof. R. L. Rea, a fund has been provided for four scholarships each year for indigent worthy students. These scholarships are awarded to the four students whose credentials and qualifications for the study of medicine entitle them to participate in the benefits of the Rea fund.

The students whose names follow received benefit under this scholarship during the session of 1915-1916

William Franklin Carroll

Lincoln Harrison Norwood

Max Lampert

Abraham Seletz

### **COURSES OFFERED**

Students entering the four-year curriculum as offered in the College of Medicine offer two years of work in liberal arts and sciences for admission. Upon the completion of the first two years in the College of Medicine, the degree of Bachelor of Science will be conferred; and upon the completion of the four years in the College of Medicine, the degree of Doctor of Medicine will be conferred. The two years of work in arts and sciences required for admission to the College of Medicine may be taken in the College of Liberal Arts and Sciences at Urbana.

### **REQUIREMENTS FOR GRADUATION**

1. Four full courses of instruction of not less than thirty-two weeks each, no two being in the same year, are required of every candidate for graduation.
2. The last course of instruction shall have been taken in this institution.
3. Acceptable evidence of good moral character must have been filed.
4. The candidate shall be at least twenty-one years old.
5. He shall have satisfactory credits and pass his final examinations in accordance with the rules of the Faculty.
6. All indebtedness to the college shall have been paid.

### **GENERAL PLAN OF INSTRUCTION**

The curriculum required for graduation extends over four years. During the first two years the work is largely confined to the sciences fundamental to practical medicine, and the time of the student is largely devoted to laboratory

work. During the first year this consists of work in anatomy, histology, embryology, physiology, and chemistry. During the second year the study of anatomy, physiology, and physiological chemistry is continued, and in addition the student takes up therapeutics, pathology, and autopsies.

During the third and fourth years the time is devoted to practical medicine and surgery, and to clinical instruction.

Attendance upon clinics is required and students are graded on and given credit for their work in the clinical courses just as they are for the work in the didactic and laboratory courses. The students of the third and fourth years are divided into sections for dispensary work, and have instruction in rotation in the various departments of practical medicine and surgery.

#### **Optional Work**

In addition to the required work, students may, with the permission of the Committee on Optional Courses, take one or more optional courses. No credit will be allowed for this work.

### **RULES FOR PROMOTION**

The passing grade in each subject is 70 per cent. A grade of from 60 per cent to 70 per cent constitutes a condition and entitles the student to one re-examination in the subject. A mark below 60 per cent or the failure to remove a condition by re-examination constitutes a failure, and the subject must be repeated in course. A student who has any failure standing against him may not be advanced to the next year without the permission of the committee on promotion. Students who fail in the re-examination in subjects given in the first semester of the fourth year totaling more than 48 hours will not be permitted to go on with the work of the second semester, but must repeat the subjects the following year. No student may be a candidate for graduation who has conditions in more than 96 hours.

General examinations will be held in all subjects at the end of each semester. The examinations for the removal of conditions for students of the first three years will be held during the week preceding the opening of the next collegiate year. Re-examinations in subjects presented in the first semester of the fourth year will be held not later than two weeks from the end of that semester.

Certificates showing credits earned, including the attendance record, are issued at the end of the college year.

## DESCRIPTION OF COURSES

### ANATOMY, HISTOLOGY, EMBRYOLOGY

ALBERT CHAUNCEY EYCLESHYMER, B.S., M.D., Ph.D., *Professor and Head of the Department*

FREDERICK BOGUE NOYES, A.B., D.D.S., *Professor of Dental Histology*

VICTOR EMANUEL EMMEL, Ph.D., *Assistant Professor*

ROY LEE MOODIE, Ph.D., *Associate*

ELMER S RIGGS, A.M., *Lecturer on Comparative Dental Anatomy*

THOMAS SMITH JONES, B.F.A., *Artist*

LOUIS N BOELIO, *Technician*

MORRIS KRAMER, *Technician*

#### General Statement

The laboratories for gross anatomy occupy two floors in the Dental Building. They comprise two dissecting rooms and a number of smaller rooms for embalming, storing, and prospecting. The laboratory for histology and embryology and the offices and research laboratories, are on the third floor of the Medical Building. The equipment includes apparatus for embalming, sectioning, macerating, corroding, and digesting; microtomes, microscopes, paraffin ovens, drawing apparatus, chemicals, glassware and Grübler stains. A small museum contains special dissections, osteological preparations, and models; sets of histological, neurological, and embryological slides; charts, lantern slides, and other teaching accessories. The departmental library contains the standard texts and about two thousand five hundred special monographs. All the English, German and French anatomical journals are received. The Crear library is readily accessible and makes it possible to consult practically the whole literature of anatomy, zoology, and biology.

The aims of the department are: to give such training in the essentials of anatomy as is necessary to secure a foundation for later clinical work; to aid the exceptional student and physician to obtain a special knowledge of certain restricted fields of anatomy as a foundation for specialization; to stimulate both students and physicians to contribute to medical science.

#### Required Courses—First Year

**Embryology.**—Ovogenesis and spermatogenesis, maturation, ovulation and its relation to menstruation, fertilization, segmentation, gastrulation, formation and significance of germinal layers; the formation of foetal envelopes and placenta; organs and systems of organs; congenital malformations. Lectures and recitations: 2; laboratory: 2 two-hour periods. *II (second half.)\**

Professor EYCLESHYMER and assistants

**Cytology, Histology, and Microscopic Anatomy.**—Animal cells; modified cells, such as are found in blood and lymph, epithelial, connective, muscular,

\*The first and second semesters are indicated by the Roman numerals I and II, respectively. A portion of a semester is indicated by the words in parenthesis following the semester numeral. Unless otherwise specifically stated, the Arabic numerals indicate the number of one-hour periods a week in each subject.

and nervous tissues and their relationships in the body. Lectures and recitations: 3; laboratory: 3 three-hour periods. *I.*

Professor EYCLESHYMER and assistants

**Neurology.**—The gross and microscopic anatomy of brain, spinal cord, and organs of special sense. Lectures and recitations: 2; laboratory: 2 two-hour periods. *II (first half).* Professor EYCLESHYMER and assistants

**Systematic Anatomy.**—Dissection of the human body. For convenience, the body is subdivided into: (1) upper extremity and head and neck; (2) lower extremity and thorax and abdomen. (In order that there may be a correlated study of osteology each student is lent a set of bones for study at home.) Lectures and recitations: 3; laboratory: 2 three-hour periods. *I, II.*

#### Required Course—Second Year

**Topographical Anatomy.**—The topography and relations of the various regions, systems and organs of the body. Lectures and recitations: 2; laboratory: 2 three-hour periods. *I.*

Dr. MOODIE and assistants

#### Optional and Graduate Courses

**Microscopical Technics.**—Preparation of objects; injecting blood vessels and lymphatics; maceration, digestion, corrosion; decalcification, fixation of tissues, embedding, sectioning, staining, mounting. Hours to be arranged.

Mr. BOELIO

**Medical Illustrating.**—Drawing, including perspective; values and their adaptation in the representation of medical subjects; normal and pathological specimens, both gross and microscopic; media adapted for representing certain conditions and structures, and for special methods of reproduction, such as line work, half tone, and lithography. (Open to all who are interested in the making of medical illustrations for publications.) Hours to be arranged.

Mr. JONES

**Embryology and Histogenesis.**—The structural changes in the principal tissues and their cellular elements during growth; changes in the structure of cells during senescence. Hours to be arranged.

Professor EYCLESHYMER

**Dissection Review.**—The principal systems of the body. Demonstration, occasional lectures, and quizzes. (Open only to those who have completed at least the first half of the third year.)

Dr. MOODIE

#### Courses Preparatory to Specialization

(Special fee)

- A. The Eye.
- B. The Ear.
- C. The Mouth, Nose, and Throat.
- D. The Thorax and Abdomen.
- E. The Genito-urinary System.
- F. Pelvic Anatomy.
- G. The Extremities, especially the joints and their mechanism.
- H. The Brain and Spinal Cord.

**Research.**—Physicians who desire to do research and students who have had three years of university training are invited to begin research work in this department. A reading knowledge of French and German is essential.

**Seminar.**—Critical reviews of recent literature; bibliographies; preparation of scientific papers for publication. Presentation and discussion of the results of investigations.

### APPLIED AND SURGICAL ANATOMY

(See Department of Surgery.)

### DERMATOLOGY

FREDERICK GILLETTE HARRIS, M.D., *Assistant Professor of Dermatology and Venereal Diseases and Acting Head of the Department*

PHILIP FRANK SHAFFNER, M.D., *Instructor*

JOHN H. STOKES, M.D., *Instructor*

#### Required Courses—Fourth Year

**Dermatology.**—Didactic, illustrated. 2; I or II.

Assistant Professor HARRIS

**Clinical Dermatology.**—Given in Cook County Hospital. 1; I or II.

Assistant Professor HARRIS

**Clinical Dermatology.**—Given in the dispensary. Clinics of one hour daily throughout the year. 3; I, II (*three weeks each semester*).

Assistant Professor HARRIS, Dr. SHAFFNER

#### Optional Courses

**Syphilis.**—Advanced clinical course, limited to six students.

Assistant Professor HARRIS

**Pathology and Bacteriology of the Skin.**—Limited to six students.

Dr. SHAFFNER

### EXPERIMENTAL MEDICINE

DAVID JOHN DAVIS, B.S., M.D., Ph.D., *Professor and Director of the Laboratories*

JOSIAH J. MOORE, M.S., M.D., *Associate, Experimental Medicine*

HARRY B. CULVER, B.S., M.D., *Instructor, Experimental Medicine*

#### General Statement

The function of this department is to carry on research in medical problems, especially in clinical medicine, and to conduct the courses in clinical diagnosis and the laboratory work of the dispensary.

#### Required Course—Second Year

**Laboratory Diagnosis.**—The microscopic, bacteriologic, and chemical examination of urine, blood, sputum, feces, stomach contents, exudates. 8; *one-half of I or II.*

Professor DAVIS, Dr. MOORE

#### Optional Courses

**Advanced Special Laboratory Methods.**—Limited to a few specially qualified students. Hours to be arranged.

Dr. MOORE

**Research.**—Limited to qualified students.

Professor DAVIS

### HYGIENE AND MEDICAL JURISPRUDENCE

ADOLPH GEHRMANN, M.D., *Professor and Head of the Department of Hygiene*

ELMER DEWITT BROTHERS, M.S., LL.B., *Lecturer, Medical Jurisprudence*

MATTHEW MILLS, LL.B., *Alternate Lecturer, Medical Jurisprudence*

## Required Courses—Third Year

**Public Hygiene.**—General etiology, immunity, contagious diseases, epidemiology, and preventive medicine; organization of health departments and the work of divisions of the same; vital statistics; factory and school inspection; sanitation; municipal sanitation; public welfare. Visits to public institutions and plants where the actual operation of the various phases of public health activities may be studied. Lectures. 2; II; laboratory and conference: 8 three-hour periods.

Professor GEHRMANN

**Medical Jurisprudence.**—Lectures: 1; I or II.

Mr. BROTHERS

## MEDICINE

CHARLES SPENCER WILLIAMSON, B.S., M.D., *Professor, and Head of the Department*

*Division of Internal Medicine*

CHARLES SPENCER WILLIAMSON, B.S., M.D., *Professor of Medicine*

MAURICE LOUIS GOODKIND, M.D., *Professor, Clinical Medicine*

JOSEPH MCINTYRE PATTON, M.D., *Professor, Clinical Medicine*

FREDERICK TICE, M.D., *Professor, Diseases of the Chest and Clinical Medicine*

JOHN WEATHERSON, C.E., M.D., *Assistant Professor, Medicine*

MAURICE LEWISON, M.D., *Assistant Professor, Physical Diagnosis*

EDWARD LOUIS HEINTZ, Ph.G., M.D., *Assistant Professor, Medicine and Clinical Medicine*

ROBERT MOSSER, M.D., *Associate, Clinical Medicine*

ERNEST SISSON MOORE, Ph.D., M.D., *Associate, Clinical Medicine*

GEORGE J LORCH, Ph.G., M.D., *Instructor, Medicine*

ROBERT WILLIAM MORRIS, A.B., M.D., *Instructor, Medicine*

WALDEMAR EBERHARDT, B.S., M.D., *Instructor, Medicine*

FRANK CHAUDET, M.D., *Instructor, Physical Diagnosis*

WALTER BRADFORD METCALF, M.D., *Instructor, Clinical Medicine*

EDWARD F FOX, M.D., *Instructor, Medicine*

SOLomon STROUSE, A.B., M.D., *Instructor, Clinical Medicine*

LOUIS RUDOLPH, M.D., *Instructor, Physical Diagnosis*

F RAYMOND CROOKS, M.D., *Instructor, Medicine*

FRANKLIN S WILSON, M.D., *Instructor, Clinical Medicine*

PHILIP M DALE, M.D., *Instructor, Clinical Medicine*

FRANK J JIRKA, M.D., *Assistant, Physical Diagnosis*

ALEXANDER WILLIAM BURKE, M.D., *Instructor in Medicine*

ROBERT ARCHIE CRAWFORD, M.D., *Instructor in Medicine*

ROBERT LUDWICK FURBY, M.D., *Instructor in Medicine*

JOHN CHARLES MATTHEW KRASA, M.D., *Instructor in Medicine*

PAUL BROWN WELCH, M.D., *Instructor in Medicine*

## General Statement

The work of this department is given in the second, third, and fourth years. In the second year the work includes physical diagnosis on the normal subject; pathologic cases preparatory to the clinical work of the last two years; laboratory diagnosis.

In the third year instruction is carried on by conferences, recitations, and clinics. The student obtains instruction in internal medicine, sees appropriate

clinical cases, and comes into intimate contact with patients and examines them in the dispensary under supervision.

In the fourth year instruction is given by means of lectures and group quizzes, continuing the work of the third year. A large part of the work, however, is clinical, and is given not only in the College, but in the Cook County, University, and Michael Reese hospitals. In addition practical work is given in the dispensary in the various medical specialties. The last six weeks of the second semester are given over to a review of internal medicine.

#### **Required Course—Second Year**

**Physical Diagnosis.**—(a) Lectures. 1; II.

(b) Practical drill on normal subjects. 1 two-hour period; II.

Assistant Professor LEWISON, Dr. CHAUDET, Dr. RUDOLPH

#### **Required Courses—Third Year**

**Practise of Medicine.**—Infectious diseases, except tuberculosis; intoxications; diseases of metabolism and of the ductless glands. Conferences; recitations. 4; I, II.

Assistant Professor HEINTZ, Dr. LORCH, Dr. CROOKS, Dr. FURBY, Dr. KRASA

**Medical Clinic.**—Selected topics—in the amphitheatre of the Cook County Hospital. 1 two-hour period; I or II. Professor WILLIAMSON

**Medical Clinic.**—Material from the University Hospital dispensary. 1 two-hour period; I or II. Assistant Professor HEINTZ

**Physical Diagnosis Clinic.**—Given to small groups, using the patients in the tuberculosis wards of the Cook County Hospital. 1; I.

Assistant Professor LEWISON, Dr. CHAUDET

**Medical Dispensary.**—Practical work on out-patients. The rooms in which the course is conducted have been designed for this purpose. Practically every disease of an ambulatory nature found in the temperate zone may be seen here. 3 two-hour periods; I, II (*three weeks*).

Dr. MOSSER, Dr. MOORE, Dr. METCALF, Dr. WILSON, Dr. DALE

#### **Required Courses—Fourth Year**

**Practise of Medicine.**—Diseases of the alimentary tract, liver, pancreas, peritoneum, heart, and lungs. The kidneys and the blood; review of selected subjects. Lectures illustrated by pathological specimens, charts, and lantern slides; conferences. 6; I—3; II.

Lectures, Professor WILLIAMSON and Professor TICE; Conferences, Assistant Professor WEATHERSON, Dr. MORRIS, Dr. EBERHART, Dr. Fox

**Medical Clinic.**—Gastro-intestinal, cardio-vascular, and renal diseases; methods of diagnostic analysis. Collateral reading. 1 two-hour period; I or II.

Professor WILLIAMSON

**Medical Clinic.**—Given in the amphitheatre of the Cook County Hospital. 1 two-hour period; I or II. Professor PATTON

**Medical Clinic.**—Given in the amphitheatre of the Cook County Hospital. 1 two-hour period; I or II. Professor TICE

**Group Clinic.**—Given at the Michael Reese Hospital. Four one-hour periods to each group. Professor GOODKIND

**Medical Seminar.**—Work in cooperation with the departments of surgery and obstetrics. The student receives 48 hours' credit, 16 in each department,

altho the work done is in one department only. During the first semester, the groups meet informally, and abstracts are prepared and submitted for criticism. During the second semester, each group is assigned one hour in which to present its work before the entire class. Professor WILLIAMSON and Assistants

#### Optional Course

**Seminar in the Classics of Medicine.**—Given if a minimum number of four students apply; more than eight can not be admitted. Hours to be arranged. Professor WILLIAMSON

#### Division of Pediatrics

JULIUS HAYS HESS, M.D., Associate Professor, Pediatrics and Clinical Pediatrics

EMANUEL OLIVER BENSON, A.B., M.D., Assistant Professor, Pediatrics and Clinical Pediatrics

EDWARD KENT ARMSTRONG, M.D., Instructor

HENRY EUGENE IRISH, M.D., Instructor

MAURICE L BLATT, M.D., Instructor

JACOB CARL KRAFFT, M.D., Instructor

JOSEPH SAMUEL COHN, M.D., Instructor

ABRAHAM LEVINSON, M.D., Instructor

#### General Statement

The work in pediatrics is given in the third and fourth years. So far as possible, individual instruction is given, the class being divided into small groups for clinical work.

#### Required Courses—Third Year

**Pediatrics.**—Nutrition and nutritional disturbances in infancy. Lectures. I; II. Associate Professor HESS

**Pediatrics.**—Recitations. I; I.

Dr. IRISH, Dr. ARMSTRONG, Dr. McCARTY, Dr. COHN

**Pediatric Clinic.**—Physical diagnosis and demonstration of cases. I; I or II. Assistant Professor BENSON, Dr. FRENCH

#### Required Courses—Fourth Year

**Section Conference.**—Michael Reese Hospital. 1 hour a week for four weeks. Associate Professor HESS

**Section Conference.**—University Hospital. 1 hour a week for four weeks. Dr. IRISH

**Section Conference.**—Contagious diseases. Cook County Hospital. 1 hour a week for four weeks. Dr. ARMSTRONG

**Dispensary.**—Three two-hour periods for three weeks each semester.

Dr. BLATT, Dr. COHN, Dr. KRAFFT, Dr. LEVINSON

**Pediatric Clinic.**—Cook County Hospital. 1 two-hour period; I or II. Associate Professor HESS

#### Division of Neurology

LEE HARRISON METTLER, A.M., M.D., Professor and Head of the Division of Neurology and Clinical Neurology

ISADOR BERNARD DIAMOND, M.D., Instructor

CARL J S RYDIN, M.D., Instructor

EDWIN FRANKLIN LEONARD, M.D., Instructor

**Required Courses—Fourth Year**

**Neurology.**—Clinico-didactic lectures; recitations. Lectures, 1; *I, II.* Recitations, 1; *I, II.*

Lectures, Professor METTLER; recitations, Dr. DIAMOND, Dr. LEONARD, Dr. RYDIN

**Clinical Neurology.**—Dispensary instruction. 3 two-hour periods, three weeks; *I, II.* Dr. DIAMOND, Dr. RYDIN, Dr. LEONARD

**Optional Courses**

Special lectures in neuropathology, electrotherapeutics, or other related subjects. 4 one-hour periods. Professor METTLER

*Division of Psychiatry*

HAIM I DAVIS, M.D., *Assistant Professor, Clinical Psychiatry and Head of the Division of Psychiatry*

**Required Courses—Fourth Year**

**Psychiatry.**—Lectures and quizzes. 1; *II.* Assistant Professor DAVIS

**Clinical Psychiatry.**—Given in the detention wards of the Cook County Hospital. 1, eight weeks; *I, II.* Assistant Professor DAVIS

*Division of Roentgenology*

ADOLPH HARTUNG, M.D., *Instructor*

**Required Course—Fourth Year**

**Roentgenology.**—Conferences and demonstrations. 4 one-hour periods. Dr. HARTUNG

*Division of History of Medicine*

BERNARD JOHN CIGRAND, M.S., D.D.S., *Lecturer*

**Optional Course—Fourth Year**

**History of Medicine.**—Lectures. 1; *I or II.*

**OBSTETRICS AND GYNECOLOGY**

CHARLES SUMNER BACON, Ph.B., M.D., *Professor of Obstetrics and Head of the Department*

*Division of Obstetrics*

CHARLES SUMNER BACON, Ph.B., M.D., *Professor, Obstetrics and Clinical Obstetrics*

RACHELLE S YARROS, M.D., *Associate Professor, Obstetrics and Clinical Obstetrics*

CECIL VON BACHELLE, M.S., M.D., *Assistant Professor, Obstetrics*

OTTO HERMAN ROHRLACK, Ph.G., M.D., *Assistant Professor, Obstetrics and Clinical Obstetrics*

ANNIE ESTHER BARRON HARRISON, M.D., *Instructor*

RICHARD CHARLES STEFFAN, M.D., *Instructor*

JOHN WILLIAM BIRK, M.D., *Instructor*

CHARLES NEWBERGER, M.D., *Instructor*

WALTER CHARLES HAMMOND, M.D., *Instructor*

EDWARD MARTIN HEACOCK, M.D., *Instructor*

FREDERICK HOWARD FALLS, A.B., M.D., *Research Fellow and Instructor*

**General Statement**

The equipment of this department consists of manikins, demonstration pelvis, malformed pelvis, and other pathological specimens, charts, obstetrical instruments, and prepared fetuses. The histology and pathology is given in connection with the department of experimental medicine.

The clinical work is given in the University Hospital and the Chicago Lying-In Dispensary. Bedside and dispensary clinics are given in the University Hospital. Each student is also required to assist in the delivery of six parturients. Reports of cases kept by students form the basis of conference discussions. An amphitheater clinic is given to the senior class.

Fourth year students are required to take two weeks in residence in the Chicago Lying-In Hospital and Dispensary.

**Required Courses—Third Year**

**Anatomy and Histology of the Obstetrical Passages and Passenger.**—  
4 periods of two hours each. Dr. FALLS

**Physiology of Pregnancy, Labor, the Puerperium, and the New Born Infant.**—Lectures; recitations. 2; I, II.

Associate Professor YARROS, Dr. BIRK, Dr. NEWBERGER, Dr. HEACOCK, Dr. HAMMOND, Dr. FALLS

**Bedside and Dispensary Clinic.**—University Hospital. 12 one-hour periods.

Professor BACON, Assistant Professor ROHRLACK, Dr. HARRISON, Dr. FALLS

**Parturition Clinic.**—University Hospital. Three cases.

**Required Courses—Fourth Year**

**Pathological Anatomy and Histology.**—Laboratory. 2 to 4 two-hour periods in combination with the course on the pathology of the genital tract. (See division of gynecology.) Dr. FALLS

**Pathology of Pregnancy, Labor, and the Puerperium.**—Lectures; recitations. 48 hours in one-hour and two-hour periods.

Professor BACON, Assistant Professor ROHRLACK, Dr. BIRK, Dr. NEWBERGER, Dr. HEACOCK, Dr. HAMMOND, Dr. FALLS

**Manikin Work.**—8 two-hour periods.

Assistant Professor BACHELLE, Dr. STEFFEN

**Bedside and Dispensary Clinic.**—Given at the University Hospital. 12 one-hour periods.

Professor BACON, Assistant Professor ROHRLACK, Dr. HARRISON, Dr. FALLS

**Amphitheater Clinic.**—Given at the University Hospital. 1; I or II.

Professor BACON

**Parturition Clinic.**—Given at the University Hospital. Three cases.

**Chicago Lying-In Hospital and Dispensary.**—Residence, two weeks; at least six cases. (Fee, \$15.)

**Obstetrical Seminar.**—Work in cooperation with the departments of medicine and surgery. For this work the student receives 48 hours credit, 16 in each department, altho the work is in one department only. During the first semester, the groups meet informally, and abstracts are prepared and submitted for criticism. During the second semester each group is assigned one hour in which to present its work before the class.

Professor BACON and assistants

**Optional Course****Obstetrical Pathology.**—Third or fourth year.*Division of Gynecology*

CHANNING WHITNEY BARRETT, M.D., *Professor, Gynecology and Clinical Gynecology*

MARY GILRUTH McEWEN, B.S., M.D., *Assistant Professor, Clinical Gynecology*

JOHN MICHAEL LANG, M.D., *Assistant Professor, Clinical Gynecology*

EGAN WALTER FISCHMAN, M.D., *Instructor*

WESLEY JOHN WOOLSTON, M.D., *Instructor*

ALBERT JOHN SCHOENBERG, M.D., *Instructor*

FRANK LEE STONE, M.D., *Assistant*

MATHILDA OSBORNE LICHNER, B.S., M.D., *Assistant*

**Required Courses—Fourth Year**

**Gynecology.**—Recitations; lantern slide demonstrations; exhibition of fresh and preserved pathologic tissue; illustrations by charts and models. An occasional hour is devoted to operative work. 2; I.

Professor BARRETT, Dr. McEWEN, Dr. LANG, Dr. FISCHMANN, Dr. WOOLSTON, Dr. SCHOENBERG, Dr. STONE

**Diagnostic and Operative Clinic.**—Cook County Hospital. Diagnosis, prognosis, and treatment of typical and atypical cases. Cases preliminary to operation; post-operative progress; pathologic tissues. 1 two-hour period; I or II.  
Professor BARRETT

**Diagnostic and Operative Clinic.**—The College Amphitheater or West Side Hospital. Material from the College and Marcy Center dispensaries is available for bedside study of the post-operative course. 1 two-hour period, 8 weeks; I, II.

Professor BARRETT, Assistant Professor McEWEN, Assistant Professor LANG

**Dispensary Clinics.**—College and Marcy Center dispensaries. Examinations; study of cases; written reports. 3, six weeks; I, II.

Assistant Professor LANG, Dr. FISCHMANN, Dr. WOOLSTON, Dr. STONE, Dr. LICHNER

**Gross and Microscopic Study of Pathology of the Genital Tract**—Gross and microscopical specimens; conferences. 2 to 4 two-hour periods, in combination with the course on pathological anatomy and histology. (See division of obstetrics.)  
Dr. FISCHMANN, Dr. STONE

**Optional Course**

**Gynecologic Pathology.**—Special courses for students of demonstrated proficiency. Special investigation. Professor BARRETT and assistants

**OPHTHALMOLOGY**

CASEY ALBERT WOOD, A.M., M.D., *Professor of Ophthalmology and Head of the Department*

WILLIAM ELLIOTT GAMBLE, B.S., M.D., *Associate Professor, Clinical Ophthalmology*

JONATHAN BROWN LORING, M.D., *Assistant Professor, Clinical Ophthalmology*

EPHRAIM KIRKPATRICK FINDLAY, M.D., *Assistant Clinical Professor, Ophthalmology*

CHARLES CLAYTON CLEMENT, M.D., *Instructor*

FREDERICK DOUGLAS VREELAND, M.D., *Instructor*

WILLIAM BUTLER WEST, M.D., *Instructor*

LAWRENCE WELLS WHITMER, M.D., *Assistant*

EDWARD F SLAVIK, M.D., *Assistant, Clinical Ophthalmology*

GEORGE WILLIAM WOODNICK, M.D., *Instructor, Clinical Ophthalmology*

HELEN CARNCROSS, M.D., *Instructor, Clinical Ophthalmology*

#### Required Courses—Fourth Year

**Didactic Ophthalmology.**—Lectures; dispensary teaching; clinical lectures in the hospital. Meetings of the Journal Club. 1, twelve weeks; *I*. Professor Wood

**Clinical Ophthalmology.**—The common diseases of the eye; minor operations the general practitioner may be expected to perform. 1; *I* or *II*. Professor Wood, Associate Professor GAMBLE, and assistants

**Dispensary Instruction.**—Diagnosis and treatment of the commoner diseases of the eye. 3 two-hour periods, three weeks each semester.

Professor Wood, Assistant Professor LORING, Assistant Professor FINDLAY, and instructors

#### Optional Courses

Properly qualified students can arrange for special or advanced work in ophthalmology by applying to Professor Wood.

### PATHOLOGY AND BACTERIOLOGY

DAVID JOHN DAVIS, B.S., M.D., Ph.D., *Acting Professor of Pathology and Acting Head of the Department*

WILLIAM H BURMEISTER, A.B., M.D., *Assistant Professor, Pathology*

THOMAS HARRIS BOUGHTON, M.D., M.S., *Instructor*

FREDERICK HOWARD FALLS, A.B., M.D., *Instructor*

CARL GAFFNEY, *Technician, Bacteriology*

AMY WEEDON, *Technician, Pathology*

#### Required Course—Second Year

**General Pathology and Pathological Histology.**—General pathology; gross and microscopic study of fresh and preserved pathological material. Lectures; recitations; demonstrations. 2; one and one-half semesters; laboratory work, 3 two-hour periods, one and one-half semesters.

Assistant Professor BURMEISTER, Dr. BOUGHTON

#### Required Courses—Third Year

**Special Pathology.**—Gross and microscopic examination of organs; post-mortem bacteriology; experimental pathology. The work is closely correlated with post-mortem examination (see autopsies) and also with clinical pathology. 2 two-hour periods; *II*. Professor DAVIS and assistants

**Autopsies.**—Cook County Hospital. Third-year students are required to attend 16 autopsies. 1 two-hour period; *II*.

#### Required Course—Fourth Year

**Autopsies.**—Fourth-year students are required to attend 16 autopsies. 1 two-hour period; *I* or *II*.

**Optional Courses**

**Advanced Laboratory and Research Work.**—Open to a limited number of qualified students. Hours to be arranged.

Professor DAVIS, Assistant Professor BURMEISTER

**Diagnosis of Tumors.**—Open to students who have had courses in general and special pathology. Hours to be arranged. *I.*

*Division of Bacteriology***Required Course—Second Year**

**General Bacteriology and Protozoology.**—Pathogenic bacteria and protozoa; immunity. Lectures; demonstrations; laboratory. 160 hours. *I.*

Professor DAVIS, Dr. MOORE

**Optional Course**

**Advanced Work and Research in Bacteriology.**—Limited to qualified students. Hours to be arranged.

Professor DAVIS

**PHARMACOLOGY AND THERAPEUTICS**

BERNARD FANTUS, M.D., *Professor, Pharmacology and Therapeutics*

ALFRED OGLE SHAKLEE, B.S., M.D., *Assistant Professor, Pharmacology*

WATLER EDWARD SIMMONDS, M.D., *Assistant, Physical Therapy*

**Required Courses—Second Year**

**Elementary Prescription-Writing and Pharmacy.**—Each student prepares a typical specimen of each of the more important classes of pharmaceutical preparations, and practices prescribing them. *1; I.*

Professor FANTUS, Assistant Professor SHAKLEE

**Systematic Pharmacology.**—Important drugs with predominant local action. Lectures and recitations, *1; II.* Laboratory, 1 two-hour period; *II.*

Professor FANTUS, Assistant Professor SHAKLEE

**Non-Pharmaceutical Therapeutics.**—Remedial measures other than drugs: psychotherapy, mechanotherapy, hydrotherapy, electrotherapy, radiotherapy, climatology, dietetics. Laboratory in mechanotherapy and hydrotherapy; practise with electrotherapeutic and roentgenologic apparatus. Lectures and recitations, *3; II.* Laboratory, *1; II.* Professor FANTUS, Dr. SIMMONDS

**Required Courses—Third Year**

**Systematic Pharmacology.**—Important drugs with predominant systemic action. Lectures and recitations, *2; I.* Laboratory, 1 three-hour period; *I.*

Professor FANTUS, Assistant Professor SHAKLEE

**General Therapeutics.**—Remedial measures: diuresis, diaphoresis, catharsis, antipyresis, analgesia, anesthesia, hypnosis, antisepsis. Prescription-writing for hypothetical cases. Lectures; recitations, *2; II.* Professor FANTUS

**Optional Courses**

**Special Experimental Pharmacodynamics.**—Open to a limited number of qualified students of the third or fourth year. Three hours laboratory a week, 48 hours a semester. Professor FANTUS, Assistant Professor SHAKLEE

**Biologic Drug Assay.**—The valuation of the activity of drugs that cannot be assayed by chemical methods. Three hours laboratory a week, 48 hours a semester.

Professor FANTUS, Assistant Professor SHAKLEE

**Research.**—Qualified students may do research laboratory work under direction of members of the staff.

**Seminar.**—Discussion of current pharmacologic and therapeutic literature and the results of research work in progress.

## PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

GEORGE PETER DREYER, A.B., Ph.D., *Professor, Physiology and Physiological Chemistry, and Head of the Department*

WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor, Physiological Chemistry*

ROY GENTRY PEARCE, A.B., M.D., *Assistant Professor, Physiology*

CLAYTON S SMITH, M.S., Ph.D., *Instructor, Physiological Chemistry*

GROVER TRACY, A.B., *Assistant, Physiological Chemistry*

J CRAIG SMALL, B.S., *Student Assistant, Physiological Chemistry*

HOWARD E CURL, A.B., *Student Assistant, Physiology*

ALBERT CHARLES D'VORAK, B.S., *Student Assistant, Chemistry*

### *Division of Physiology*

#### **General Statement**

The apparatus of this department includes sphygmographs, sphygmomanometers, medical battery, and that used for clinical examination of the blood.

#### **Required Courses—First Year**

**Physiology.**—Lectures; class room experiments; demonstrations. 3; *II.* Professor DREYER

**Experimental Physiology.**—Laboratory; recitations; conferences. 2 three-hour periods; *II.* Professor DREYER and assistants

#### **Required Courses—Second Year**

**Physiology.**—Lectures; class experiments; demonstrations. 2; *I.* Professor DREYER

**Experimental Physiology.**—Laboratory; recitations; conferences. 2 three-hour periods; *I.* Professor DREYER and assistants

#### **Optional Courses**

**Advanced Laboratory.**—Qualified students may take an optional course, consisting of a series of exercises introducing the graphic methods of physiological demonstration and research, and varying in kind and amount according to individual needs.

**Journal Club and Seminar.**—Reports; special topics.

### *Division of Chemistry*

#### **Required Courses—First Year**

**Organic Chemistry.**—Biological chemistry; fats; proteins; carbohydrates. Lectures; demonstrations; conferences, 2; *I.* Laboratory, 2 three-hour periods; *I.* Dr. SMITH, Mr. TRACY

**Physiological Chemistry and Toxicology.**—Lectures; demonstrations; conferences, 2; *II.* Laboratory, 2 three-hour periods; *II.* Assistant Professor WELKER, Dr. SMITH, Mr. TRACY

**Prerequisite:** A course in organic chemistry as outlined above.

**Optional Courses**

**Prerequisite:** The required courses in organic and physiological chemistry.

**Quantitative Urinary Analysis.**—Lectures, 1; laboratory, 6.

Assistant Professor WELKER, Dr. SMITH, Mr. TRACY

**Toxicology.**—Lectures, 1; laboratory, 6.

Dr. SMITH, Mr. TRACY

**Sanitary Chemistry.**—Water and sewage analysis; purification. Lecture, 1; laboratory, 6.

Assistant Professor WELKER, Mr. TRACY

**Food Analysis.**—Composition; adulteration; preservation. Lecture, 1; laboratory, 6.

Assistant Professor WELKER, Dr. SMITH

**Research.**—Open to persons with the requisite scientific training for original investigation under the direction of a member of the staff.

**Seminar.**—Discussion of results of recent work in chemical biology. 1; I, II.

**SURGERY**

DANIEL ATKINSON KING STEELE, M.D., LL.D., *Professor, and Head of the Department*

*Division of General Surgery*

DANIEL ATKINSON KING STEELE, M.D., LL.D., *Professor, Surgery and Clinical Surgery*

THOMAS ARCHIBALD DAVIS, M.D., *Professor, Clinical Surgery*

WILLIAM MCINTYRE HARSHA, A.B., M.D., *Professor, Surgery and Clinical Surgery*

DANIEL NATHAN EISENDRATH, A.B., M.D., *Professor, Surgery and Clinical Surgery*

ALBERT JOHN OCHSNER, B.S., M.D., *Professor, Surgery and Clinical Surgery*

CHARLES DAVISON, M.D., *Professor, Surgery and Clinical Surgery*

ALBERT EDWARD HALSTEAD, M.D., *Professor, Surgery and Clinical Surgery*

CHARLES EDWARD HUMISTON, M.D., *Associate Professor, Clinical Surgery*

NELSON MORTIMER PERCY, M.D., *Associate Professor, Clinical Surgery*

GEORGE FARNSWORTH THOMPSON, B.S., M.D., *Assistant Professor, Surgery and Clinical Surgery*

FREDERICK GEORGE DYAS, M.D., *Assistant Professor, Surgery and Clinical Surgery*

FRANK DONALD MOORE, M.D., *Assistant Professor, Surgery and Clinical Surgery*

VICTOR L SCHRAGER, M.D., *Associate, Surgery*

CHARLES HERBERT PHIFER, M.D., *Instructor, Surgery*

HOWARD OSCAR SHAFER, M.D., *Instructor, Surgery*

JOHN ROSS HARGER, B.S., M.D., *Instructor, Surgery and Minor Surgery*

HENRY LESTER BAKER, M.D., *Instructor, Surgery*

GEORGE LUTHER DAVENPORT, M.D., *Instructor, Surgery*

ARRIE BAMBERGER, M.D., *Instructor, Surgery and Minor Surgery*

RAYMOND WILLIAM MCNEALY, M.D., *Instructor, Surgery*

OSCAR EUGENE NADEAU, B.S., M.D., *Instructor, Surgery (Surgical Pathology)*

ARCHIE JAMES GRAHAM, B.S., M.D., *Instructor, Surgery*

GEORGE WASHINGTON POST, B.S., A.M., M.D., *Assistant, Clinical Surgery*

CHARLES C CLARK, M.D., *Assistant, Clinical Surgery*

ROBERT EMMET FLANNERY, M.D., *Assistant, Clinical Surgery*

MAX MEYEROVITZ, M.D., *Assistant, Clinical Surgery*

CARL ALBERT MEYER, M.D., *Assistant, Clinical Surgery*

LYNDON HARRIS, M.D., *Assistant, Clinical Surgery*

**Required Courses—Third Year**

**Surgery and Surgical Pathology.**—Conferences; recitations. 2; I, II.  
Assistant Professor MOORE, Assistant Professor DYAS, Assistant Professor HARGER, Assistant Professor THOMPSON

**Clinical Surgery.**—University Dispensary. Bandaging; dressings; surgical appliances. 3 two-hour periods, three weeks; I, II.

Assistant Professor HARGER, Dr. BAMBERGER, Dr. FISCHER, Dr. POST

**Clinical Surgery.**—Cook County Hospital. 2; I or II.

Assistant Professor THOMPSON

**Clinical Surgery.**—Cook County Hospital. 2; I or II.

Assistant Professor HUMISTON

**Anesthetics.**—Conferences; demonstrations. 4 one-hour periods.

Dr. MEYER

**Required Courses—Fourth Year**

**Practise of Surgery.**—Lectures (See calendar below.) 1; I, II. Quiz: 1; I, II. Dr. PHIFER, Dr. DAVENPORT, Dr. McNEALY, Dr. BAKER, Dr. SHAFER

*October*

**Surgery of the Head and Neck.**—Professor HALSTEAD

*November*

**Surgery of the Thorax.**—Professor HALSTEAD

*December*

**Surgery of the Stomach.**—Professor DAVIS

*January*

**Surgery of the Duodenum and Intestines.**—Professor HARSHA

*February*

**Hernia and Post-Operative Treatment.**—Professor STEELE

*March*

**Surgery of the Liver, Pancreas, and Spleen.**—Professor OCHSNER

*April*

**Surgical Diseases and Injuries of the Bones.**—Professor DAVISON

*May*

**Surgery of the Genito-Urinary Tract.**—Professor EISENDRATH

**Clinical Surgery.**—University Hospital. 1 two-hour period; 8 weeks.  
Professor STEELE, Dr. BAKER, Dr. CLARK

**Clinical Surgery.**—University Hospital. 1 two-hour period; 8 weeks.  
Professor DAVISON, Assistant Professor MOORE, Dr. MEYEROVITZ

**Clinical Surgery.**—West Side Hospital. 1 two-hour period; 8 weeks.  
Professor T. A. DAVIS

**Clinical Surgery.**—Cook County Hospital. 1 two-hour period; 8 weeks.  
Professor DAVISON

**Clinical Surgery.**—Cook County Hospital. 1 two-hour period; I or II.  
Assistant Professor DYAS

**Clinical Surgery.**—College. 1 two-hour period; *I or II.*

Associate Professor PERCY, Dr. POST, Dr. FLANNERY

**Clinical Surgery.**—St. Luke's Hospital. 4 two-hour periods; *I.*

Professor HARSHA, Professor HALSTEAD

**Clinical Surgery.**—Augustana Hospital. 4 two-hour periods.

Professor OCHSNER, Associate Professor PERCY, Dr. FLANNERY

**Surgical Pathology.**—Laboratory. 1 two-hour period; 8 weeks.

Dr. NADEAU

**Surgical Seminar.**—Work in cooperation with the departments of medicine and obstetrics. For this work the student receives 48 hours credit 16 in each department, altho this work is in one department only. During the first semester, the groups meet informally and abstracts are prepared and submitted for criticism. During the second semester, each group is assigned one hour in which to present its work before the class.

Professor STEELE and assistants

#### *Division of Orthopedic Surgery*

JOHN LINCOLN PORTER, M.D., *Professor, Orthopedic Surgery*

CHARLES MAYER JACOBS, M.D., *Associate Professor, Clinical Surgery (Orthopedic)*

DAVID ALEXANDER, M.D., *Instructor*

HARRISON WILLIS MALTBY, M.D., *Assistant*

WILLIAM ARTHUR CLARK, M.D., *Assistant*

#### **Required Courses—Third Year**

**Orthopedic Surgery.**—Lectures. 1; *I.*

Professor PORTER

**Clinical Orthopedic Surgery.**—College amphitheater. 1; *I or II.*

Professor PORTER

**Clinical Orthopedic Surgery.**—Cook County Hospital. 1; *I or II.*

Associate Professor JACOBS

**Dispensary.**—3 two-hour periods; *three weeks, I, II.*

#### **Required Course—Fourth Year**

**Clinical Orthopedic Surgery.**—St. Luke's Hospital. 4 two-hour periods.

Professor PORTER

#### *Division of Genito-Urinary Surgery*

DANIEL NATHAN EISENDRATH, A.B., M.D., *Professor, Surgery and Clinical Surgery (Genito-Urinary)*

GEORGE FRENCH STROTHER CARY, M.D., *Instructor*

CHARLES MORGAN MCKENNA, M.D., *Instructor*

HARRY JEROME SMEJKAL, M.D., *Instructor*

ELMER WELLPOTT SCHNOOR, M.D., *Assistant*

#### **Required Courses—Third Year**

**Genito-Urinary and Venereal Diseases.**—Lectures. 1; *I.*

Professor EISENDRATH

**Genito-Urinary and Venereal Diseases.**—University Dispensary. Clinics; conferences. 3 two-hour periods; *three weeks, I, II.*

Professor EISENDRATH, Dr. CARY, Dr. MCKENNA, Dr. SCHNOOR

**Required Courses—Fourth Year**

**Clinical Surgery (Genito-Urinary).**—College amphitheater. 2; eight weeks. Professor EISENDRATH, Dr. CARY, Dr. MCKENNA, Dr. SCHNOOR

**Clinical Surgery (Genito-Urinary).**—Michael Reese Hospital. 4; I, II. Professor EISENDRATH, Dr. SCHNOOR

*Division of Operative Surgery*

WILLIAM CHESTER SMITH, M.D., *Instructor*

**Required Course—Second Year**

**Operative Surgery.**—Operations on the cadaver and on animals. 2; II. Dr. SMITH

*Division of Laryngology, Rhinology, and Otology*

NORVAL H. PIERCE, M.D., *Professor of Surgery (Laryngology, Rhinology, and Otology) and Head of the Division*

JOSEPH C. BECK, M.D., *Associate Professor, Surgery (Laryngology, Rhinology, and Otology)*

JOHN ALGERNON CAVANAUGH, M.D., *Associate, Surgery (Laryngology, Rhinology, and Otology)*

LILLIAN ETHEL TAYLOR, M.D., *Instructor, Surgery (Laryngology, Rhinology, and Otology)*

EUGENE BERMINGHAM, M.D., *Instructor, Surgery (Laryngology, Rhinology, and Otology)*

EDWARD F GARRAGHAN, M.D., *Instructor, Surgery (Laryngology, Rhinology, and Otology)*

**Required Courses—Third Year**

**Laryngology and Rhinology.**—The diseases of the throat and nose. Lectures. 1; I. Associate Professor BECK

**Laryngology and Rhinology.**—College amphitheater. 1; I or II. Associate Professor BECK, Dr. CAVANAUGH, Dr. TAYLOR

**Laryngology and Rhinology.**—University Dispensary. 3 one-hour periods; three weeks, I, II.

Associate Professor BECK, Dr. CAVANAUGH, Dr. TAYLOR, Dr. BIRMINGHAM

**Optional Course**

**Clinical Laryngology and Rhinology.**—Cook County Hospital. 1. Associate Professor BECK

*Otology*

NORVAL PIERCE, M.D., *Professor, Surgery (Otology and Clinical Otology)*

**Required Course—Third Year**

**Otology.**—Surgical anatomy, physiology, and pathology of the ear. Lectures. 1; six weeks. Professor PIERCE

**Clinical Surgery (Otology).**—Illinois Eye and Ear Infirmary. 4 one-hour periods. Professor PIERCE

**SUMMARY OF HOURS****First Year**

Subjects	First Semester		Second Semester		Total
	Didactic	Laboratory	Didactic	Laboratory	
<b>ANATOMY:</b>					
Gross .....	32	112	32	112	288
Microscope .....	32	160	32	64	288
<b>CHEMISTRY:</b>					
Organic .....	32	96	..	..	128
Physiological .....	..	..	32	96	128
<b>PHYSIOLOGY</b> .....	..	..	48	96	144
<i>Total</i> .....	96	368	144	368	976

**Second Year**

Subjects	First Semester		Second Semester		Total
	Didactic	Laboratory	Didactic	Laboratory	
<b>Anatomy,</b>					
Topographical .....	32	96	..	..	128
Bacteriology .....	48	96	..	..	144
Hygiene .....	..	..	32	24	56
Laboratory Diagnosis.....	..	..	..	64	64
Non-Pharmacal Therapeutics .....	..	..	48	16	64
Pharmacology .....	..	..	32	32	64
<b>Prescription Writing and</b>					
Pharmacy .....	..	16	..	..	16
Pathology .....	32	96	16	48	192
Physical Diagnosis.....	..	..	16	32	48
Physiology .....	32	96	..	..	128
Surgery (Operative).....	..	..	..	32	32
<i>Total</i> .....	144	400	144	248	936

**Third Year**

Subjects	First Semester			Second Semester			Total
	Didactic	Clinical	Dispensary	Didactic	Clinical	Dispensary	
Autopsies .....	..	..	..	..	32	..	32
*Hygiene .....	32	24	..	..	..	..	56
<b>Laryngology and</b>							
Rhinology .....	16	16	9	..	..	9	50
Internal Medicine..	64	40	18	64	40	18	244
<b>Medical</b>							
Jurisprudence ...	..	..	..	16	..	..	16
Pathology .....	..	..	..	..	64	..	64
Pediatrics .....	16	..	..	16	16	..	48
<b>Pharmacology and</b>							
Therapeutics ....	32	48	..	32	..	..	112
Obstetrics .....	32	..	..	32	20	..	84
Otology .....	..	..	..	6	4	..	10

\*This subject will be presented in the senior year for the year 1915-16 only.

*Summary of Hours*

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General Surgery....	32	32	18	32	36	18	168
Orthopedic Surgery	16	16	18	..	16	18	84
Genito-Urinary							
Surgery .....	16	..	18	..	..	18	52
<i>Total</i> .....	<i>256</i>	<i>176</i>	<i>81</i>	<i>230</i>	<i>252</i>	<i>81</i>	<i>1020</i>

**Fourth Year**

Subjects	Didactic	First Semester		Second Semester		Total
		Clinical	Dispensary	Didactic	Clinical	
*Autopsies .....	..	32	..	..	..	32
Dermatology .....	32	16	9	..	..	9
Genito-Urinary						
Surgery .....	..	4	..	..	16	..
Gynecology .....	32	32	9	..	20	9
Medicine .....	96	50	..	48	66	..
Neurology .....	16	16	18	16	16	18
Obstetrics .....	32	24	..	32	24	..
Ophthalmology ....	12	16	18	..	..	18
Pediatrics .....	..	32	18	..	12	18
Psychiatry .....	..	..	..	16	8	..
Roentgenology ....	..	..	..	..	4	..
General Surgery ...	32	80	..	32	96	..
Surgical Pathology ..	..	..	..	..	16	..
<i>Total</i> .....	<i>252</i>	<i>302</i>	<i>72</i>	<i>144</i>	<i>278</i>	<i>72</i>
Grand total of hours for the four years.....						4052
Duplication of hours.....						88
Actual number of hours.....						3964

**FURTHER INFORMATION**

For further information, including circular, address THE SECRETARY OF THE COLLEGE OF MEDICINE, CONGRESS AND HONORE STREETS, CHICAGO, ILLINOIS.

\*This subject will be presented in the third year for the year 1915-16 only.

# THE COLLEGE OF DENTISTRY

(For the faculty of the College of Dentistry, see page 40; for a description of the building, see page 59.)

## LOCATION

The College is situated on the corner of Harrison and Honore streets in Chicago, opposite the Cook County Hospital, in the center of the clinical field of Chicago. On the west is the West Side Hospital, and on the north the College of Medicine of the University of Illinois.

## PROSTHETIC LABORATORIES

The prosthetic laboratories are three in number, one for each class. They are equipped with new-model benches and each student is provided with two drawers, gas, compressed air, and electric light. Each laboratory is supplied with hot and cold water, electric lathes for grinding and polishing, molding benches, furnaces, and casting devices.

## INFIRMARY

The infirmary occupies the top floor. The equipment includes chairs of improved type, each chair furnished with an electric engine, electric light, compressed air, gas connection, and a stand for instrument case. A sterilizer is continuously in operation. There is an exhibit of specimens of drugs in their crude state and in the forms in which they are prepared for use in dentistry. There is a laboratory for prosthetic work, equipped with apparatus and tools for soldering, plate work, and polishing, and a laboratory for porcelain work with electric furnaces and porcelain ovens.

## LIBRARY

The library is housed with the Quine Library of the College of Medicine in the medical building adjoining. Through the courtesy of Mrs. Margaret Cook, wife of the late Dr. George Washington Cook, former Dean of the College of Dentistry, his dental library, comprising two hundred volumes, besides unbound volumes of dental journals, has been given to the College. A dozen dental journals are received regularly. The library is open from 9 a. m. to 5 p. m. daily during the school year, with a librarian in attendance.

## ADMISSION

An applicant for admission to the College of Dentistry must be at least 18 years of age. Women are admitted on the same terms as men.

Each candidate for admission must present a certificate of graduation from an accredited high school, or an equivalent; which equivalent is interpreted to mean *15 units\** of preparatory work in an accredited high school or academy or a state normal school.

\*A unit is the amount of work represented by the pursuit of one high-school subject for one year of 36 weeks, with five forty-minute recitations each week, or the equivalent in laboratory or other practise.

No "conditions" can be permitted; the full 15 units must be offered. The foregoing requirements may be satisfied either (a) by *certificate* or (b) by *examination*.

Entrance credits will be accepted by *certificate* from the following sources:

(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.

(2) From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.

(3) From schools accredited by the North Central Association of Colleges and Secondary Schools.

(4) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.

(5) From schools approved by the New England College Entrance Certificate Board.

(6) From high schools and academies registered by the Regents of the University of the State of New York.

Entrance credits may be made by *examination*:

(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For program see pages 81-82.

(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in the fall. In 1916 these examinations will be held on September 20-22.

(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 77.

(4) In the examinations conducted by the Regents of the University of the State of New York.

Applicants for admission coming from institutions of higher learning, whether candidates for the freshman class or for advanced standing, must present entrance credentials or pass entrance examinations as indicated above.

The College of Dentistry will receive no student who is not present within 10 days after the opening day of the session in each year, or in case of necessary delay by reason of illness, properly certified by the attending physician, within 20 days after the opening day.

#### ADMISSION TO ADVANCED STANDING

Persons who can meet the requirements for admission to this college and who have studied dentistry in other schools for not less than one year may be admitted to advanced standing after satisfying the faculty that they have completed an amount of work equivalent to that which is exacted by this college in the respective classes.

Students who have had one or more years in the College of Medicine or in other medical colleges of equal rank, are allowed credit toward graduation for so much of the required curriculum in dentistry as was included in their medical curriculum. They must, however, be registered for full time. Graduates of the University of Illinois with degree of Bachelor of Arts or Bachelor of Science, who have taken courses in biology and chemistry in the University, can secure advanced standing in the curriculum in dentistry, provided they have done full work in the sciences required in the dental curriculum.

Graduates of recognized medical colleges may secure advanced credit for work and one year of time toward graduation, and are excused from lectures and examinations in general anatomy, chemistry, histology, pathology, and physiology, but are required to take lectures and examinations in dental subjects.

### LENGTH OF COURSE

The courses are graded and cover three years of college work. The teaching of one year is not repeated, and the curriculum is progressive, the several classes having separate laboratories and at no time taking lectures or demonstrations together.

If, for any cause, a regular student desires to extend his studies over a period of four or more years, a curriculum will be specially arranged for him.

### REQUIREMENTS FOR GRADUATION

The degree of Doctor of Dental Surgery will be conferred on students who have completed the curriculum, attended the required time, and passed satisfactory final examinations. To be eligible for the degree, the student must be twenty-one years of age, must possess a good moral character, and must have paid all fees.

The monthly report of attendance, and the standing of students in quizzes, recitations, laboratory work, and infirmary practise, both operative and prosthetic, are considered in making up the rating of final examinations.

### LICENSE FOR PRACTISE IN ENGLAND

On the recommendation of the Board of Examiners in Dental Surgery, the Council of the Royal College of Surgeons, in London, has added the College of Dentistry of the University of Illinois to the list of dental schools recognized by the College. This recognition implies that the Royal College of Surgeons will exempt graduates in dental surgery of the University of Illinois from the preliminary science examination for the license in dental surgery, and will accept such parts of the curriculum for the license as are completed in the College of Dentistry of the University of Illinois toward the curriculum of study required for a license.

### METHOD OF INSTRUCTION

Instruction is given by means of lectures, recitations, demonstrations, and laboratory work. The time of the student is about equally divided between laboratory and clinical work on the one hand and lectures and recitations on the other.

Students are admitted to the laboratories from the beginning of the first year. Laboratory work is closely correlated with lectures and clinical studies.

In the clinical work, methods of investigation and reasoning are taught. Diagnosis, prognosis, and indications for treatment receive no less attention than methods of construction and the technics of procedure.

## DESCRIPTION OF COURSES

### BACTERIOLOGY, PATHOLOGY, AND ORAL SURGERY

FREDERICK BROWN MOOREHEAD, A.B., D.D.S., M.D., *Professor, Oral Surgery, Bacteriology, and Pathology, and Head of the Department*

DAVID JOHN DAVIS, B.S., M.D., *Professor of Pathology*

LOUIS SCHULTZ, D.D.S., M.D., *Assistant Professor, Oral Surgery and Pathology*

FRANK JOSEPH BERNARD, D.D.S., *Instructor, Extracting*

T HARRIS BOUGHTON, M.S., M.D., *Instructor, Bacteriology and Pathology*

KAETHE W DEWEY, M.D., *Research Pathologist*

EDWIN PAUL SWATEK, D.D.S., *Clinical Assistant in Oral Surgery*

ANNA BOLAN, *Nurse in Oral Surgery Clinic*

**General Bacteriology.**—Classification of bacteria, products of bacterial growth, and methods of observing, cultivating, isolating, and identifying bacteria; sterilization, disinfection, pathogenic bacteria in diseased conditions of the mouth; cultural and staining technic; dental caries, pathological conditions of first and second dentition, sensitive dentin, hyperemia and congestion, pulp nodules, putrescent pulps, acute and chronic alveolar abscesses, diseases of the periodontal membrane, necrosis of hard and soft tissues. Lectures; recitations; demonstrations; laboratory work. 112-7; I; 2\*.

Professor DAVIS and assistants

**General Pathology.**—Circulatory disturbances, retrogressive and progressive processes, inflammation, tumors; pathology of important organs; blood and urine analysis; disease processes involving the teeth and buccal cavity. Lectures; recitations; demonstrations of fresh and preserved specimens; laboratory. 112-7; II; 2.

Professor DAVIS and assistants

**Special Bacteriology and Pathology.**—Relation of foci of infections in the mouth to constitutional diseases; the pulp and peri-dental membrane. Lectures; recitations; demonstrations; laboratory. 96-3; I, II; 3.

Professor MOOREHEAD, Assistant Professor SCHULTZ, and assistants

**Oral Surgery.**—Major operations performed in the clinic; diagnosis and treatment of minor lesions.

(a) *Lectures and recitations* on etiology, diagnosis, treatment, and local and general anesthetics. 64-2; I, II; 3.

(b) *Surgical Clinic.*—Every Monday morning from 9:00 to 12:30. Diagnosis, case discussions, and operations. Reports. 112-3½; I, II; 3.

Professor MOOREHEAD, Assistant Professor SCHULTZ, and assistants

**Extracting Clinic.**—Selection and application of forceps and elevators; demonstration of nitrous oxid, oxygen, novocain, conduction and infiltration; asepsis and after treatment. 192-6; I, II; 3.

Dr. BERNARD

\*The first number indicates the total number of hours in a course; the number after the hyphen indicates the number of exercises a week; the Roman numerals I, II indicate the first and second semesters, and the final numbers 1, 2, 3 indicate respectively the freshman, junior, and senior years. Thus, 112-7; I; 2 means that the course includes 112 hours, 7 a week, given during the first semester of the junior year.

**OPERATIVE DENTISTRY**

DONALD MACKAY GALLIE, D.D.S., *Professor*

LOUIS E BAKE, D.D.S., *Assistant Professor*

JOHN C McGUIRE, D.D.S., *Superintendent of Infirmary, Instructor*

JACOB HYMAN KAPLAN, D.D.S., *Instructor*

W IRA WILLIAMS, D.D.S., *Instructor*

EDWARD J KREJCI, D.D.S., *Instructor*

MILZOR W DEIST, D.D.S., *Instructor*

**Operative Dentistry.**—Nomenclature; tooth forms; carving in ivory or bone; dissections of the pulp chamber and canals; longitudinal and transverse sections; instrument making and care; cavity preparation in ivory blocks and tooth forms; instruments for different cavities; manipulation, grasps, rests, and direction and control of force; treating, cleaning, and filling of root canals; filling materials, their application, preparation, and manipulation. 256-8; I, II; 1.

Assistant Professor BAKE, Dr. KAPLAN

**Operative Dentistry.**—Cavity nomenclature and preparation; use of the odontotype; inlay technic; chair positions; application of the rubber dam; use of clamps, wedges, and separation. **Operative Clinic:**—Beginning with the second semester, second year students are admitted to the infirmary, and given instruction in oral prophylaxis, followed by regular infirmary work. *One lecture and recitation throughout the year; 128 hours, laboratory; 2.*

Professor GALLIE, Assistant Professor BAKE

**Operative Dentistry.**—Review; management of patients and special cases; treatment and filling of children's teeth; erosion; atrophy; abrasions. 64-2; I, II; 3.

Professor GALLIE

**PROSTHETIC DENTISTRY**

GEORGE WALTER DITTMAR, D.D.S., *Professor*

SOLOMON PERRY STARR, D.D.S., *Assistant Professor*

JACOB HYMAN KAPLAN, D.D.S., *Instructor*

EDWARD J KREJCI, D.D.S., *Instructor*

MILZOR W DEIST, D.D.S., *Instructor*

**Prosthetic Dentistry.**—Terminology; materials; impressions; plaster casts and models; base plates; articulation and occlusion; carving, polishing, and finishing of vulcanite dentures; models for dies; casting; counter die construction; swaging; soldering; casting aluminum and "fusible metal" plates. 256-8; I, II; 1.

Assistant Professor STARR, Dr. KAPLAN

**Prosthetic Dentistry.**—Crown and bridge work; root preparation, band construction, and crown conformation; restoration of badly decayed roots for crowns; repairing and restoring portions of fractured roots; carving, swaging, and casting cusps; swaging seamless crowns; casting full metal and porcelain faced crowns, cap and pin crowns; grinding and backing facings; detachable porcelain crowns. Bridge work: casting; removable bridge work; tenso-friction attachments; splints and bar supports; selection of porcelain facings and crowns; grinding, polishing, staining. 224-7; I, II; 2.

Professor DITTMAR, Assistant Professor STARR, Dr. KAPLAN

**Prosthetic Dentistry.**—Plate denture construction; human dental mechanism; temporo-mandibular articulation; operations; occluding frames; registration of condyle paths and rotation points in the mandible; physiognomy and

temperament of individuals and construction of dentures with teeth of proper size, form, shade, and arrangement; grinding, shaping, and staining; continuous gum dentures and vulcanite and metallic bases; partial plates and removable bridges; porcelain and forms of porcelain teeth; crowns and bridge construction; splints for the retention of loosened teeth and maxillary fractures; velæ and obturators for the restoration of cleft palates. 32-1; I, II; 3. Professor DITTMAR

### MATERIA MEDICA AND THERAPEUTICS

EDGAR D COOLIDGE, D.D.S., *Professor*

EDWARD J KREJCI, D.D.S., *Instructor*

**Materia Medica.**—Drugs used in dentistry; terminology. 32-1; I, II; 1.  
Dr. KREJCI

**Materia Medica.**—Pharmaceutical preparations; classification of drugs; administering; conditions which modify their effects; action upon tissues and organs; poisons. Lectures; recitations. Text-book: Prinz's *Dental Materia Medica and Therapeutics*. 16-1; I; 2.  
Professor COOLIDGE

**Therapeutics.**—Prescription-writing; pathological lesions; dental caries; salivary deposits; oral hygiene and prophylaxis. Lectures; recitations. Text-books: Prinz's *Materia Medica and Therapeutics*; Marshall's *Mouth Hygiene*. 16-1; II; 2.  
Professor COOLIDGE

**Therapeutics.**—Pathologic conditions of the periodontal membrane and pulp; treatment; dental caries; diseases of the dental pulp; hypersensitive dentin; pulp capping; hyperemia of the pulp; anesthetization and devitalization of the pulp, its removal, treatment and filling of root canals; pulp gangrene, suppuration, and alveolar abscess; discoloration and bleaching; the periodontal membrane; pericementitis, apical and complete, septic and non-septic, phagademic pericementitis, gingivitis, pyorrhea, and stomatitis; oral prophylaxis; thesis. Text-book: Prinz's *Dental Materia Medica and Therapeutics*. 23-1; I, II, 3.  
Professor COOLIDGE

### ORTHODONTIA

FREDERICK BOGUE NOYES, B.S., D.D.S., *Professor of Histology*

**Orthodontia.**—Normal occlusion, mal-occlusions. Lectures, illustrated by lantern slides and the projectoscope. Text-book: Angle's *Malocclusion of the Teeth*. 32-1; I, II; 3.  
Professor NOYES

### ANATOMY, HISTOLOGY, AND EMBRYOLOGY

FREDERICK BOGUE NOYES, B.S., D.D.S., *Professor of Histology*

ALBERT CHAUNCEY EYCLESHYMER, M.D., Ph.D., *Professor of Anatomy*

CLIFFORD W WELLS, B.S., M.D., *Instructor, Histology*

ROY LEE MOODIE, A.B., Ph.D., *Instructor, Anatomy*

L R WOODWARD, *Student Assistant, Histology*

**Systematic Anatomy.**—Dissection of the entire body; respiratory and digestive systems and dissection of head and neck. Lectures; demonstrations; laboratory; recitations. 288-9; I, II; 1.  
Dr. MOODIE

**Topographical Anatomy.**—Head and neck in serial section; topography of the organs and structures. Lectures; recitations; demonstrations; laboratory. 114-9; I; 2.  
Professor EYCLESHYMER, Dr. MOODIE

**General Histology.**—Cell structure and function; relation to intercellular substances and tissues; elementary tissues; histology of the circulatory system; the alimentary tract and glands; the urinary system; the respiratory system, and the skin, nails, and hair. Text-book: Bailey. Three hours laboratory work and one hour lecture or quiz a week. 128; I; 1.

Professor NOYES, Dr. WELLS

**Dental Histology and Embryology.**—The tissues of the teeth, the supporting tissues and the tissues of the oral cavity; the enamel; operative procedures; cavity walls; general embryology; embryology of the teeth, mouth, and jaws. Text-book: Noyes's *Dental Histology and Embryology*. Three hours laboratory and one hour lecture and quiz a week. 128; I, II; 2.

Professor NOYES, Dr. WELLS

### Graduate Work

**Dental Histology.**—In the summer of 1915 a special course of six weeks in dental histology was offered for those desiring to prepare themselves for the teaching of this subject in dental schools. The course consisted of three hours of laboratory work and one hour of lecture or quiz a week.

## PHYSIOLOGY AND CHEMISTRY

GEORGE PETER DREYER, A.B., Ph.D., *Professor, Physiology and Chemistry*

WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor, Chemistry*

CLAYTON S SMITH, B.S., M.S., Ph.D., *Instructor, Chemistry*

GROVER TRACY, A.B., *Assistant, Chemistry*

J CRAIG SMALL, B.S., *Student Assistant, Chemistry*

HOWARD CURL, A.B., *Student Assistant, Physiology*

ALBERT CHARLES D'VORAK, B.S., *Student Assistant, Chemistry*

### Physiology

The students of the College of Dentistry take their work in physiology in the physiology laboratory of the College of Medicine. The work falls in the junior year when the prerequisites, including anatomy, histology, and chemistry, have been in large part completed.

**Systematic Human Physiology.**—Lectures; recitations. 96-3; I, II; 2.

Professor DREYER and assistants

**Practical Physiology.**—Demonstrations and laboratory running parallel with the didactic course. 64-2; I, II; 2.

Professor DREYER and assistants

### Chemistry

The instruction in chemistry is given in the laboratories of the College of Medicine.

**General Inorganic Chemistry.**—Metals and non-metals. Four hours lectures and recitations, six hours laboratory a week. Text-books: McPherson and Henderson's *Course in General Chemistry*; Remsen's *Chemical Experiments*.

Mr. TRACY, Mr. SMALL, Mr. D'VORAK

**Qualitative Analysis.**—Metals and acids; the groups; solutions of unknown bases, unknown acids, and unknown bases and acids. Four hours lec-

tures and recitations, six hours laboratory a week. Text-book: Gooch and Browning's *Outlines in Qualitative Chemical Analyses*. *8o; II, first half; I.*

Mr. TRACY, Mr. SMALL, Mr. D'VORAK

**Metallurgy.**—Extraction and refining of metals; physical properties; ores, alloys, solders, and cements; refining of gold, silver, and tin. Four hours lectures and recitations and six hours laboratory a week. Text-book: Hodgen's *Practical Dental Metallurgy*. *8o; II, second half; I.*

Assistant Professor WELKER, Mr. TRACY, Mr. SMALL, Mr. D'VORAK

**Metallurgy.**—(Advanced course, open to students who have completed satisfactory courses in inorganic chemistry, qualitative analysis, and metallurgy.) *Hours to be arranged.* Assistant Professor WELKER, Mr. SMITH

### DENTAL JURISPRUDENCE

ELMER DEWITT BROTHERS, LL.B., *Lecturer*

**Dental Jurisprudence.**—The dentist's individual and professional rights and obligations; responsibilities arising from the relation of dentist and patient; dental laws of the various states. *Senior year.* Mr. BROTHERS

### RADIOGRAPHY

JOHN C MC GUIRE, D.D.S., *Instructor*

**Radiography.**—The X-ray as a diagnostic agent; the radiograph; exposure and development. *Senior year.* Dr. MC GUIRE

### COMPARATIVE ANATOMY

ELMER S RIGGS, A.M., *Lecturer*

Evolution of the masticatory apparatus; food habits; digestive processes. *I5-I; II; 3.* Mr. RIGGS

### PRACTITIONERS' COURSE

**Oral Surgery, Radiography, Prosthesis, and Therapeutics.**—Class limited to twenty-five. Fee, \$25. *Hours to be arranged.*

Professor MOOREHEAD, Professor COOLIDGE, Professor DITTMAR, Assistant Professor SCHULTZ, Dr. MC GUIRE, Dr. KREJCI, and assistants

### SUMMARY OF CURRICULUM

#### Freshman Year

Departments	Didactic	Laboratory	Hours Total
Materia Medica .....	32	..	32
Anatomy .....	64	256	320
Histology .....	32	96	128
Chemistry .....	96	192	288
Operative Technic .....	..	256	256
Dental Anatomy .....	32	..	32
Prosthetic Technic .....	..	256	256
<i>Total</i> .....	256	1056	1312

**Junior Year**

Departments	Didactic	Laboratory	Hours Total
Anatomy .....	*32	*128	160
Physiology .....	64	96	160
Materia Medica .....	32	..	32
Bacteriology .....	*16	*96	112
Pathology .....	†16	†96	112
Histology .....	32	96	128
Prosthetic Dentistry .....	32	256	288
Operative Dentistry .....	32	128	160
Comparative Anatomy .....	†16	..	†16
Metallurgy .....	10	..	10
<i>Total</i> .....	282	896	1178

**Senior Year**

Departments	Didactic	Laboratory	Clinic	Hours Total
Special Bacteriology and Pathology.....	32	64	..	96
Oral Surgery .....	64	..	96	160
Extracting .....	..	..	256	256
Therapeutics .....	64	..	..	64
Orthodontia .....	32	..	128	160
Prosthetic Dentistry .....	64	..	448	512
Operative Dentistry .....	64	..	448	512
Porcelain Art .....	16	80	..	96
Jurisprudence (Dental) .....	16	..	..	16
Ethics and Economics.....	10	..	..	10
<i>Total</i> .....	362	144	1376	1882

**TEXT BOOKS**

Students are requested to consult the head of each department before purchasing text books. The most recent editions are required in every case.

**FEES**

Matriculation fee (paid first year) .....	\$ 5.00
Registration fee (paid second and third years).....	5.00
Tuition, each year (including laboratory and dissection fees).....	150.00
Locker fee .....	2.00
Diploma fee (paid on graduation).....	5.00

Fees are not returned to students who are suspended or expelled or to those who are absent for any cause except illness. Payments should be made in currency or in Chicago exchange drawn to the order of the University of Illinois.

**FEES ARE PAYABLE IN ADVANCE.**—Students unable to meet this requirement must make satisfactory arrangements with the Dean at the beginning of the course.

\*First Semester.  
†Second Semester.

**BOARD AND ROOMS**

Board and rooms convenient to the College can be obtained at prices varying from four to six dollars a week; rooms without board, furnished or unfurnished, can be obtained at from six to ten dollars a month.

**FURTHER INFORMATION**

For further information, address THE DEAN OF THE COLLEGE OF DENTISTRY, Harrison and Honore Streets, Chicago, Illinois.

# THE SCHOOL OF PHARMACY

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For the *faculty* of the School of Pharmacy, see page 41; for a description of the *building*, see page 59.

## HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. The first class, of two students, was graduated in 1861. The war caused a suspension of teaching, and the school was not reopened until 1870. The fire of 1871 destroyed the equipment, but in 1872 instruction was resumed for the second time and has since continued without interruption.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois.

## LOCATION

The School of Pharmacy occupies the four upper floors in a building located at Michigan Boulevard and Twelfth Street.

## EQUIPMENT

The east end of the building is occupied by three lecture rooms having a seating capacity of from one hundred fifty to three hundred persons.

There are six laboratories, one each for qualitative analysis, quantitative analysis, special work in chemistry, microscopy, manufacturing pharmacy, and dispensing. The total capacity of the laboratories is sufficient for 348 students, working at one time.

The laboratories are supplied with compound microscopes, analytical balances, and special apparatus, and with collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains over two thousand volumes, including, in addition to the usual works of reference, many rare books and complete files of the leading pharmaceutical journals.

## CURRICULUMS

### For the Degree of Graduate in Pharmacy

In the curriculum leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three days each week and from twenty to twenty-two hours weekly during two annual sessions of thirty weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and *materia medica*.

#### For the Degree of Pharmaceutical Chemist

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied chemistry, and bacteriology, or to prepare themselves for positions under the Food and Drugs Act, this School offers a curriculum leading to the degree of Pharmaceutical Chemist. It comprises two annual sessions of thirty-six weeks each, with instruction on five or six days each week, amounting to about thirty-three hours weekly, or a total of 2,300 hours in the entire curriculum.

*Beginning September 1, 1916, the curriculum for the degree of Pharmaceutical Chemist will be lengthened to three years for all students beginning the course at that time or subsequently.*

This curriculum is partially concurrent with the shorter curriculum and includes all the didactic instruction given in the latter. It consists largely of laboratory practise. In addition to the subjects mentioned above it embraces organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The systems of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practise and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

#### ADMISSION

The regular session opened September 20, 1915. The shorter course ends April 26, 1916; the longer course closes June 9, 1916.

Applicants for admission to the curriculum leading to the degree of Pharmaceutical Chemist must be at least seventeen years of age and must be graduates of accredited high schools or furnish evidence of a preliminary education equivalent thereto.

Applicants for admission to the curriculum leading to the degree of Graduate in Pharmacy must be at least seventeen years of age. *For 1915-16 they were required to offer two years' work in an accredited high school or the full educational equivalent. Beginning in September, 1916, the requirements for admission to the curriculum leading to the degree of Graduate in Pharmacy will be graduation from an accredited high school, including the completion of 15 acceptable units of high school work, or the full educational equivalent.*

Admission as special students, not candidates for a degree, is restricted to registered apprentices, assistants, or pharmacists, not less than twenty-one years of age.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this college.

#### GRADUATION

Drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the curriculum will be awarded the degree on the recommendation of the faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to fourteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree. Students who have successfully met the scholarship requirement, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

### STATE REGISTRATION

To become a registered pharmacist in Illinois, it is necessary to pass an examination before the State Board of Pharmacy, no diplomas being recognized.

The diploma of this School is, however, accepted in lieu of examination for registration in several states and territories; and in other states, including New York and Pennsylvania, where graduation prerequisite laws are in force, this School is among the schools recognized, and its diploma admits to the examination.

The amendments to the Illinois Pharmacy Law, in effect July 1, 1907, give credit, as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy but not to exceed two years for registered pharmacist or one year for registered assistant pharmacist.

### FEES AND EXPENSES

For a statement of the fees, see page 124. Fees are payable in advance. Students unable to meet this requirement must make satisfactory arrangements with the Actuary at the beginning of the course.

**BOARD AND LODGING.**—Good board and lodging, within a short distance of the School, can be had for from five to six dollars a week.

**SELECTION OF SEATS.**—Seats in the lecture halls and desks in the laboratories will be assigned to students by the Actuary, in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Actuary, together with credentials for admission and the matriculation fee of five dollars; senior students will make a payment on tuition account of five dollars. It is of advantage to students to matriculate early.

**OPPORTUNITIES FOR EMPLOYMENT.**—The Actuary keeps a register of students desiring employment and of pharmacists wishing to employ students. Students desiring employment are invited to correspond with him.

### FURTHER INFORMATION

Further information may be found in the special announcement of this School, which may be obtained from the ACTUARY, SCHOOL OF PHARMACY, Michigan Avenue and Twelfth Street, Chicago, Illinois.

PART III  
DESCRIPTION OF COURSES



## DESCRIPTION OF COURSES

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### EXPLANATION

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 5, Painting, the prerequisites given are Art and Design 1, 2, and 3. These three courses must be completed before Course 5 may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upward from 100.

Credit is reckoned in *semester hours*, or simply *hours*. An *hour* is one class period a week for one semester, or the equivalent in laboratory, shop, or drawing room. Graduate work is not recorded in credit hours nor do the credit hours of undergraduate courses apply to graduate students enrolled in them.

The semester, and the number of *hours* each semester for which the course counts, are shown after each course; thus: *I, II; (2)*. The Roman figures indicate semesters; the Arabic numerals in parenthesis indicate *hours* of credit for each semester for undergraduates. The omission of a course for the current year is indicated by enclosing the entire description of such a course in brackets.

"S," which is prefixed to each of the courses offered in the summer session, means "summer" and is used to distinguish such courses from those of the same number offered during the regular university year. Summer courses do not always cover the same ground as those similarly numbered in the regular session. Students wishing to know in what respect such courses are similar will be gladly furnished the desired information by the Director of the Summer Session on application. All courses in the summer session that are granted graduate credit are marked with an asterisk (\*). Courses numbered 100 and above are open only to graduate students.

**ACCOUNTANCY**

(See BUSINESS ORGANIZATION AND OPERATION.)

**AGRICULTURE****Summer Session Courses**LOUIE HENRIE SMITH, Ph.D., *Professor, Plant Breeding*ALBERT WOODWARD JAMISON, M.S., *Associate, Agricultural Extension*DANIEL OTIS BARTO, B.S., *Associate, Animal Husbandry*KARL JOHN THEODORE EKBLAW, M.S., *Associate, Farm Mechanics*SIMEON JAMES BOLE, A.M., *Associate, Pomology*WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*WILLIAM HERSCHEL SMITH, M.S., *Instructor, Animal Husbandry*

The work in the Summer Session is planned for teachers of agriculture in elementary and high schools, and also to enable those seeking degrees in agriculture to cover a portion of the required freshman subjects.

(For the courses in agriculture given during the winter session, see AGRICULTURAL EXTENSION, AGRONOMY, ANIMAL HUSBANDRY, DAIRY HUSBANDRY, and HORTICULTURE.)

**S 1a. General Agriculture.**—For description, see Agricultural Extension I. (2½). Not accepted as technical agriculture. Mr. BARTO

**S 1b. Orchard and Garden.**—Principles of orcharding; the home orchard from planting to bearing; caring for fruit trees; the home vegetable garden. Lectures, recitations, field work. (2). Mr. BOLE

**S 3. Elements of Dairy Husbandry.**—For description see Dairy Husbandry 3. (1). Mr. CRANDALL

**S 4. Country Life Problems.**—Problems of the farm; duties of citizenship; social, economic, and educational work in rural communities. Lectures; discussions. (½). Mr. JAMISON

**S 5. Fundamentals of Live Stock Judging.**—For description see Animal Husbandry 5. (2½). Mr. SMITH

**S 6a. Principles of Feeding.**—For description see Animal Husbandry 6, part one. (2). Mr. SMITH

**S 23. Poultry: Types, Breeds, and Varieties.**—For description see Animal Husbandry 23. (2½). Mr. BARTO

**S 25. Farm Crops.**—For description see Agronomy 25. (2½). Professor SMITH

**S 26. Farm Mechanics and Equipment.**—For description see Agronomy 26. (2½). Mr. EKBLAW

**AGRICULTURAL EXTENSION**

FRED HENRY RANKIN, *Superintendent and Assistant to the Dean, with rank of Assistant Professor*

ARETAS WILBUR NOLAN, M.S., *Assistant Professor*ALBERT WOODWARD JAMISON, M.S., *Assistant Professor*JOSEPH HARVEY CHECKLEY, B.S., *Assistant*ROBERT ENOCH HIERONYMUS, A.M., LL.D., *Community Adviser*JAMES HENRY GREENE, M.S., *State Leader, Junior Extension*

**1. Principles and Methods of High School Agriculture.**—Adaptation of agricultural science and practise to high school conditions; order and methods

of presentation; laboratory work; apparatus; field work. Practise teaching provided through cooperation with the local high school. II; (5).

Assistant Professor NOLAN

*Prerequisite:* Two years' work in agriculture.

**3. Agricultural Extension Teaching.**—The service of extension enterprises to the people; farmers' institutes; extension schools; farmers' clubs and cooperative work in rural communities. II; (1).

Assistant Professor RANKIN, Assistant Professor JAMISON

*Prerequisite:* Agricultural Extension 4.

**4. Country Life Problems.**—Problems of the farm; duties of citizenship; social, economic, and educational work in rural communities. Lectures. (Required of first-year students. Credit given to freshmen in the College of Agriculture only.) I; (1).

Dean DAVENPORT and other lecturers; Assistant Professor JAMISON in charge

## AGRONOMY

CYRIL GEORGE HOPKINS, Ph.D., *Professor, Agronomy*

LOUIE HENRIE SMITH, Ph.D., *Professor, Plant Breeding*

JEREMIAH GEORGE MOSIER, B.S., *Professor, Soil Physics*

WILLIAM LEONIDAS BURLISON, Ph.D., *Associate Professor, Crop Production*

ROBERT STEWART, Ph.D., *Associate Professor, Soil Fertility*

AXEL FERDINAND GUSTAFSON, M.S., *Assistant Professor, Soil Physics*

IRA WILMER DICKERSON, B.S., *Associate, Farm Mechanics*

KARL JOHN THEODORE EKBLAW, M.S., *Associate, Farm Mechanics*

FREDERICK CHARLES BAUER, B.S., *Associate, Soil Fertility*

ALBERT LEMUEL WHITING Ph.D., *Associate, Soil Biology*

WALTER BYRON GERNERT, Ph.D., *Associate, Plant Breeding*

CHESTER OTIS REED, B.S., *Instructor, Farm Mechanics*

FORREST ADDISON FISHER, B.S., *Instructor, Soil Physics*

MARVIN EDWARD JAHR, A.B., B.S., *Instructor, Farm Mechanics*

ORR MILTON ALLYN, B.S., *Instructor, Crop Production*

ELMER TRYON EBERSOL, M.S., *Instructor, Crop Production*

CLYDE ROSS NEWELL, M.S., *Instructor, Farm Mechanics*

HARRY CHARLES GILKERSON, B.S., *Assistant, Soil Fertility*

HARRISON FRED THEODORE FAHRNKOPF, B.S., *Assistant, Soil Fertility*

HOWARD JOHN SNIDER, B.S., *Assistant, Soil Fertility*

WARREN RIPPEY SCHOONOVER, B.S., *Assistant, Soil Biology*

EDWARD HARVEY WALWORTH, B.S., *Assistant Crop Production*

FRANK ARCHIBALD WYATT, Ph.D., *Assistant, Soil Fertility*

FRIEDEL CHAPIN RICHEY, B.S., *Assistant, Soil Physics*

ALFRED THORPE MORISON, B.S., *Assistant, Crop Production*

### Courses for Undergraduates

Crops: Agronomy 7, 8, 18, 22, 25.

Soils: Agronomy 9, 10, 11, 12, 13, 18, 23.

Farm Mechanics and Buildings: Agronomy 1, 2, 3, 4, 17, 18, 19, 20, 26, 27.

**1. Drainage.**—Drainage and its surveying operations. Chaining, mapping, leveling, designing, setting grade stakes, laying tile. Lectures; laboratory, first half semester; field work second half semester. II; (3). Mr. JAHR

*Prerequisite:* Agronomy 9 or its equivalent.

**2. Field Machinery.**—Construction, operation, adjustment, purchase, and care of implements for soil, seed, and feed preparation, and for seeding, cultivating, harvesting, and handling farm crops. Lectures; quiz; laboratory practise in troubles, adjustments, and testing of field machines. *I*; (3).

Mr. REED

*Prerequisite:* Agronomy 26 or registration therein.

**3. Farm Power Machinery.**—The horse as a motor, windmills, water-power, steam engines, hot-air engines, electric motors—their theory, operation, and economy. Internal combustion engines and tractors—methods of ignition, theory, operation, and economy. Transmission of farm power and its application to farm operation. Lectures; laboratory. (Alternating with Mechanical Engineering 71 and 73 if desired.) *II*; (3).

Mr. DICKERSON

*Prerequisite:* Agronomy 26 or registration therein.

**4. Farm Buildings.**—Construction materials; construction, arrangement, design, and cost estimation of machine sheds, granaries, cribs, silos, poultry houses, swine houses, various types of barns, and farm residences. Recitations; drafting. *I*; (3).

Mr. EKBLAW

**7. Advanced Farm Crops.**—Crop ecology; rotations; distribution of labor; cost of production; products and by-products of farm crops; storage; marketing. Lectures; assigned reading; laboratory; demonstration. (The schedule is so arranged that this course may be taken in conjunction with Agronomy 22 (Plant Breeding) and students are advised to register for both courses.) *II*; (3).

Associate Professor BURLISON

*Prerequisite:* Agronomy 25.

**8. Special Farm Crops.**—Special crops in which the student is interested. Reading; experiments by pot culture in the greenhouse or by plots in the field. (Under special arrangement part of this work may be done during summer vacation.) *II*; \*(2 to 5).

Associate Professor BURLISON

*Prerequisite:* Agronomy 7.

**9. Soil Physics and Management.**—Origin and formation of soil material; mechanical composition and classification; moisture; texture as affecting capillarity, osmosis, diffusion, temperature, aeration, and as affected by plowing, harrowing, cultivating, rolling, and cropping; wasting by washing; fall and spring plowing and drainage as affecting moisture, temperature, and root development; specific gravity; porosity; water-holding capacity, capillary power; rotation; continuous cropping. Lectures; laboratory. *I* or *II*; (5).

Professor MOSIER, Assistant Professor GUSTAFSON, Mr. FISHER, Mr. RICHEY

*Prerequisite:* Chemistry 2a, one unit entrance physics and one year of university work. Regular students should take Chemistry 13a previous to this course, others consult instructor.

**10. Special Work in Soil Physics.**—Physical properties of special soils; centrifugal analysis; field observations of the effects of discing, harrowing, and rolling; time and depth of cultivation; soil moisture and temperature; washing of soils; methods of prevention. *I* or *II*; \*(2-5).

Professor MOSIER, Assistant Professor GUSTAFSON, Mr. FISHER

*Prerequisite:* Agronomy 9, and approval of the soil physics division.

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\*In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**11. Soil Biology.**—Bio-chemical activities of soil micro-organisms in relation to fertility; factors influencing the bacteria, protozoa, algae, and fungi; isolation of organisms; action on insoluble mineral plant food; fermentation of crop residues; green and farm manures; nitrogen fixation; assimilation and preservation. Lectures; quiz; laboratory. *II*; (5).

Dr. WHITING, Mr. SCHOONOVER

*Prerequisite:* Agronomy 12 and Bacteriology 5 or Bacteriology 19.

**\*12. Soil Fertility, Fertilizers, Rotations.**—Fertility and yield; effect of different crops on the soil and on succeeding crops; rotations; systems of farming; manures and fertilizers; soils cropped continuously with different crops and with a series of crops; the fertility of soils from different sections of Illinois. Lectures; laboratory. *II*; (5).

Professor HOPKINS, Mr. BAUER, Mr. GILKERSON, Mr. FAHRNKOFP, Mr. SNIDER,  
Dr. WYATT

*Prerequisite:* Chemistry 13a; Agronomy 9.

**\*12a. Soil Fertility, Fertilizers, Rotations.**—(The same as Agronomy 12, for advanced students.) Lectures, quiz. *II*; (2).

Professor HOPKINS, Mr. BAUER, Mr. SNIDER, Dr. WYATT

*Prerequisite:* Graduate standing, or advanced undergraduate standing with the approval of the division.

**13. Investigation of the Fertility of Special Soils.**—Soils in which the student is interested. Elements of fertility; effect of fertilizers, as determined by pot cultures and by plot experiments; work of experiment stations and experimenters. *I*; (2, 3, 4, 5)†. Associate Professor STEWART, Dr. WYATT

*Prerequisite:* Agronomy 12.

**16. German Agricultural Readings.**—Soils and crops. The current numbers of German journals of agricultural science used as texts. *II*; (2).

Professor HOPKINS

*Prerequisite:* Two years' work in German; Agronomy 12.

**17. Harvesting Machinery.**—Expert work on grain binders, corn binders, mowers, hay rakes, loaders, and stackers. (For students preparing to do expert work in the field. Before registering in this course students should consult the instructor.) *II*; (3).

Mr. REED

*Prerequisite:* M. E. 71; Agronomy 2, and Agronomy 3, or registration therein.

**18a-18b. Investigation and Thesis.**—*I, II; (5-10)†.*

Professor HOPKINS, Professor MOSIER, Professor SMITH, Associate Professor STEWART, Dr. WHITING, Mr. EKBLAW

**19a-19b. Research in Farm Mechanics.**—(Consult instructor.) *I, II;*  
(1-5)†. Mr. EKBLAW, Mr. DICKERSON, Mr. JAHR, Mr. REED, Mr. NEWELL

**20. Farm Concrete Construction.**—Materials; mixing and placing; simple comparative tests; specifications and estimates. Lectures; laboratory. *II*; (2).

Mr. EKBLAW

\*A required inspection trip to certain soil experiment fields or farms will be arranged in May or early June, in connection with courses 12 and 12a. This trip will cost about \$10 on the part of the student.

†In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**22. Plant Breeding.**—The improvement by breeding of field crops, including grains, grasses, and legumes. Lectures; assigned reading; demonstrations; laboratory. (Schedule is arranged so that this course may be taken in conjunction with Agronomy 7.) *II; (2).* Professor SMITH, Dr. GERNERT

*Prerequisite:* Botany 1; Chemistry 13a; Agronomy 25.

**23. Plant Food Supplies.**—The world's supply of plant-food materials; utilization and conservation. *II; (1).* Associate Professor STEWART

*Prerequisite:* Agronomy 12.

**25. Farm Crops.**—Plant growth; structure; habits and requirements; preparation of the seed bed; seed selection for productiveness; grading and fanning of grain as a means of improvement; storing; care of stored grain; market grades; judging; examination for purity; testing for vitality; weeds, identification, methods of distribution, eradication, control; diseases of farm crops and methods of prevention. *I or II; (4).*

Associate Professor BURLISON, Mr. WALWORTH, Mr. EBERSOL, Mr. MORISON

**NOTE.**—Students registering in a given lecture section must, if possible, register in the corresponding laboratory section.

**26. Elementary Farm Mechanics.**—Ropes; soldering; babbitting; belt lacing; pipe cutting; plumbing; sewage disposal; water, lighting, and heating systems; power transmission; elementary mechanics; equalizers. Design of farm power plant. *I or II; (3).* Mr. EKBLAW, Mr. NEWELL

**27. Drainage Design.**—Designing tile drainage systems from level-note data and contour maps and for drainage districts; estimating; drainage district laws; preparing bids on contract jobs; field work. *I; \*(1-5).*

Mr. JAHR

*Prerequisite:* Agronomy 1, or C. E. 96, C. E. 31, or C. E. 32.

#### Courses for Graduates

Students who wish to do their major work in agronomy must have had the major courses in that subject offered to undergraduates in the College of Agriculture of the University of Illinois, or the equivalent. While every one seeking a doctor's degree with agronomy as a major is required to have a knowledge of the whole field of agronomy, each student is expected to be especially prepared in some one of the following divisions of the field: soil fertility, plant breeding, soil physics, crop production, or soil biology.

Students who are taking their major work in other departments and choose agronomy as a minor, must have had previously the work in chemistry, botany, and other fundamental sciences prescribed in the undergraduate courses for students in agronomy in the College of Agriculture, or the equivalent.

**101. Soil Investigations.**—Systems of soil investigations; sources of error and methods of control; interpretation of results. *II; (½ to 1 unit.).*

Associate Professor STEWART

**103. Soil History.**—Ultimate effect upon the soil of systems of agricultural practise. *II; (½ to 1 unit.).* Professor HOPKINS

**104. Seminar.**—Current literature on the subject of soils and crops. *I, II; (½ unit).* Dr. WHITING and others

\*In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

112. Plant Breeding.—Experiments at this station; methods and results reported from other states and from foreign countries. *I, II; (½ to 2 units).*  
Professor SMITH, Dr. GERNERT

118. Investigation.—*I, II; (1 to 2 units).*  
Professor HOPKINS, Professor SMITH, Professor MOSIER, Associate Professor STEWART, Dr. WHITING

### ANATOMY, HUMAN

(See under ZOOLOGY.)

### ANIMAL HUSBANDRY

(Including FARM MANAGEMENT)

HERBERT WINDSOR MUMFORD, B.S., Professor, Animal Husbandry

HARRY SANDS GRINDLEY, D.Sc. Professor, Animal Nutrition

WALTER CASTELLA COFFEY, M.S., Professor, Sheep Husbandry

HENRY PERLY RUSK, M.S., Assistant Professor, Cattle Husbandry

JAMES LLOYD EDMONDS, B.S., Assistant Professor, Horse Husbandry

JOHN A DETLEFSEN, D.Sc., Assistant Professor, Genetics

WALTER FREDERICK HANDSCHIN, B.S., Assistant Professor, Farm Management

DANIEL OTIS BARTO, B.S., Associate, Animal Husbandry

WALTER EDWARD JOSEPH, Ph.D., Associate, Animal Husbandry

SLEETER BULL, M.S., Associate, Animal Nutrition

HAROLD HANSON MITCHELL, Ph.D., Associate, Animal Nutrition

WILLIAM HERSCHEL SMITH, M.S., Associate, Animal Husbandry Extension

GILBERT GUSLER, B.S., Associate, Animal Husbandry

ELMER ROBERTS, B.S., Instructor, Genetics

WILBUR JEROME CARMICHAEL, B.S., Instructor, Animal Husbandry

CHARLES IVAN NEWLIN, M.S., Instructor, Animal Husbandry

JAMES BURTON ANDREWS, B.S., Instructor, Animal Husbandry

ROSCOE RAYMOND SNAPP, B.S., Instructor, Animal Husbandry

CLAUDE HARPER, B.S., Assistant, Animal Husbandry

JAMES WILBUR WHISENAND, B.S., Assistant, Animal Husbandry

EARL KIRKWOOD AUGUSTUS, B.S., Assistant, Animal Husbandry

ROY HAROLD WILCOX, B.S., Assistant, Animal Husbandry

MAYNARD ELMER SLATER, B.S., Assistant, Animal Nutrition

JOSEPH ROSSITER ZIESENHEIM, B.S., Assistant, Animal Nutrition

JOHN BENJAMIN RICE, B.S., Assistant, Animal Husbandry

WILLIAM ALGERNON KINGSMILL MORKEL, B.S., Assistant, Animal Husbandry

LAWRENCE EMERSON THORNE, B.S., Assistant, Agricultural Statistics and Genetics

WILLIAM GARFIELD KAMMLADE, B.S., Assistant, Animal Husbandry

#### Courses for Undergraduates

Beef Cattle: Animal Husbandry 11a, 11b.

Breeding, Feeding, Management, and Marketing: Animal Husbandry 8, 21, 28, 29, 30, 32; Farm Management 1.

General Judging: Animal Husbandry 1a, 2a, 4a, 5, 11a, 22.

Genetics: Animal Husbandry 30.

Horses: Animal Husbandry 4a, 4b, 17.

Meat: Animal Husbandry 10, 24.

Nutrition: Animal Husbandry 7, 31.

Poultry: Animal Husbandry 23.

Sheep: Animal Husbandry 1a, 1b, 25, 27.

Swine: Animal Husbandry 2a, 2b, 26.

**NOTE.**—Students registered in advanced courses such as 10, 22, 23, 28, 29, 32, and Farm Management 1, are required to participate in a tour of inspection of representative markets, farms, herds, flocks, and studs.

**1a. Sheep: Breeds and Market Classes.**—Breeds used for mutton and wool production; types, characteristics, and adaptability; market classes and grades of sheep and wool. Lectures; judging. *I*; (2).

Professor COFFEY, Mr. HARPER

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**1b. Sheep: Breeding, Feeding, and Management.**—Pure bred and grade flocks; feeding; housing; shepherding. Lectures; reference readings. *I*; (3).

Professor COFFEY, Mr. HARPER

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 1a and 1b simultaneously.

**2a. Swine: Breeds and Market Classes.**—History of the leading breeds; types, characteristics; adaptability; market classes and grades; market reports. Lectures; judging. *II*; (2). Mr. CARMICHAEL, Mr. RICE

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**2b. Swine Husbandry.**—Economic production of market and breeding hogs. Breeding; feeding; housing; care; sanitation; common diseases; marketing. Lectures; assigned reading; quizzes. *II*; (3). Mr. CARMICHAEL, Mr. RICE

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 2a and 2b simultaneously.

**4a. Market Classes of Horses and Mules and Breeds of Horses.**—Market classes, grades, and requirements; history of the leading breeds; types; characteristics; adaptability. Lectures; judging. *II*; (2).

Assistant Professor EDMONDS, Mr. KAMMLADE

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**4b. Breeding, Feeding, and Management of Horses.**—Methods: care of stallions, mares, and foals; of work horses and drivers at labor and idle; fattening horses for market. Lectures; assigned readings. *II*; (3).

Assistant Professor EDMONDS, Mr. KAMMLADE

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 4a and 4b simultaneously.

**5. Fundamentals of Live-Stock Judging.**—The names and location of external parts of the various kinds of live stock; the use of the score card; comparative judging; breed identification; types of farm animals. (Required in freshman year.) *I* or *II*; (3). Mr. GUSLER and assistants

**7. Principles of Animal Nutrition.**—Composition and fuel value of feeding stuffs; organic and inorganic food stuffs; digestion; absorption; metabolism; elimination of metabolic products; coefficients of digestibility and nutritive value of feeding stuffs. *I*; (5).

Professor GRINDLEY, Dr. JOSEPH, Dr. MITCHELL

*Prerequisite:* Animal Husbandry 8, 21; Chemistry 13a.

**8. Principles of Breeding.**—Evolution and genetics; origin of domesticated animals and plants; history of systematic breeding; old and new theories of breeding. (Required in sophomore year.) *I or II; (1).*

Assistant Professor DETLEFSEN, Mr. ROBERTS, and assistants

*Note.*—See Animal Husbandry 21.

**9. Investigation and Thesis.**—*I or II; \*(5-10).*

**10. Meat.**—Farm butchering, curing, and care of meats; yield, quality and values of meat and by-products, as related to breeding, feeding, and health of animals; classes, grades and cuts of meat in wholesale and retail markets. (The class will leave on its annual Chicago trip, Thursday morning, April 20, 1916. The cost will be about \$8.00.) *II; (3).*

Professor COFFEY, Mr. AUGUSTUS

*Prerequisite:* Two years of university work.

**11a. Beef Cattle.**—Breeds and market classes; history of the leading breeds; beef type from the standpoint of the butcher, the feeder, and the breeder; classification and value of each grade according to current market reports. Judging; lectures; quizzes; assigned readings. *I; (2).*

Assistant Professor RUSK, Mr. SNAPP

*Prerequisite:* Animal Husbandry 5 or its equivalent.

**11b. Beef Production.**—Breeding and management of pure-bred herds; breeding for market; combined beef and milk production; economic factors in cattle feeding; influence of age, grade, breed, condition, and sex; equipment; pork and manure as by-products of beef production. Lectures; quizzes; assigned readings (text book). *I; (3).* Assistant Professor RUSK, Mr. SNAPP

*Prerequisite:* Animal Husbandry 5, 8, and 21, or their equivalents.

It is advisable to take 11a and 11b simultaneously.

**15. Dairy Cattle.**—(See Dairy Husbandry 2 and 16.)

**[17. Education and Driving of the Horse.]**—Mental qualities, peculiarities, and limitations of the horse; education and training for labor or the road; correct driving; responsibilities of the driver; courtesies of the highway. Lectures; readings; practise. *II; (2).* Not given, 1915-1916.

Assistant Professor EDMONDS

*Prerequisite:* Animal Husbandry 4a and 4b; three semesters' work in the University or its equivalent.]

**21. Principles of Feeding.**—Classification, digestibility, and functions of feed nutrients; classification and values of feeding stuffs; feed requirements and calculation of balanced rations for farm animals. (Required in sophomore year.) *I or II; (2).*

Mr. BULL, Mr. NEWLIN, Mr. ZIESENHEIM

*Prerequisite:* Chemistry 1 or 1a, Chemistry 2 and 3, Animal Husbandry 5, and registration in Animal Husbandry 8.

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\*In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**22. Advanced Stock Judging.**—Animal conformation, quality, and condition with reference to market and show-yard requirements; selection of horses, beef cattle, sheep, and swine, for feed lot, market, and exhibition; judging at live-stock shows.—(Dec. 21, 22, and 23, 1915, will be spent in visiting breeders in northern Illinois and southern Wisconsin, also in a visit to the University of Wisconsin. The cost of this trip will be about \$25.00.) *I*; (3).

Professor MUMFORD and instructors in prerequisite courses

*Prerequisite:* Animal Husbandry 1a, 2a, 4a, 11a, or their equivalents.

**23. Poultry: Types, Breeds, and Varieties.**—Exhibiting and judging; principles of breeding; poultry houses and equipment; feeding, hatching, and brooding; market eggs and poultry; crate-fattening and dressing; diseases and their treatment. (A limited number of short trips are taken, the total cost of which will not exceed \$10.00.) *II*; (5). Mr. BARTO

*Prerequisite:* Animal Husbandry 5, or its equivalent.

**24. Meat.**—Influence of type, condition, age, sex, and feeds on the yield and market grade of meat products. *II*; \*(2-5). Professor COFFEY

*Prerequisite:* Animal Husbandry 10, and 1a or 2a or 11a; three years' work in the University, or its equivalent.

[**25. Wool.**—Factors affecting quality, quantity, strength, and condition of wool. *II*; \*(2-5). (Offered in alternate years, beginning second semester, 1914-15. Not given, 1915-16.) Professor COFFEY

*Prerequisite:* Animal Husbandry 1a, 1b; three years work in the University, or its equivalent.]

**26. Swine Husbandry.**—Special problems. *II*; \*(2-5.) Mr. CARMICHAEL

*Prerequisite:* Animal Husbandry 2a, 2b; three years' work in the University, or its equivalent.

**27. Sheep Husbandry.**—Factors determining the importance of the industry in leading sheep-growing countries, particularly different parts of the United States. *II*; \*(2-5). (Offered in alternate years; given second semester, 1915-16.) Professor COFFEY

*Prerequisite:* Animal Husbandry 1a, 1b; three years' work in the University, or its equivalent.

**28. Advanced History of Breeds of Live Stock.**—Horses, beef cattle, sheep, and swine. Methods of great breeders; performances and pedigrees of famous animals; breed type as exemplified in the University and other herds. Lectures; assigned readings; problems. (December 21, 22, and 23, 1915, will be spent in visiting breeders in northern Illinois and southern Wisconsin, also in a visit to the University of Wisconsin. The cost of the trip will be about \$25.00.. *I*; \*(3-5). Professor MUMFORD and other members of the staff

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\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

## Breeds offered, 1915-16

Beef Cattle . . . . .	Herefords, Galloways
Horses . . . . .	Shires, Clydesdales, American Saddlers
Swine . . . . .	Poland Chinas, Chester Whites
Sheep . . . . .	Rambouillet, Oxford Downs

## Breeds offered, 1916-17

Beef cattle . . . . .	Shorthorns, Aberdeen Angus
Horses . . . . .	Percherons, Belgians, Standard-breds
Swine . . . . .	Berkshires, Duroc Jerseys
Sheep . . . . .	Shropshires, Southdowns

*Prerequisite:* "a" and "b" courses in class of live stock elected. See note at the beginning of the description of courses in animal husbandry.

**29. Systems of Live-Stock Farming.**—Management, climate, soil, topography, location with reference to markets; the supply of land, labor, capital, and managing ability as factors in influencing the choice and adaptation of systems of production. Planning of farms for mixed and live-stock systems. (The class will visit some of the farms included in the farm management investigations being conducted by the department. This trip will cost about \$15.00) *II; (2).*

Assistant Professor HANDSCHIN

*Prerequisite:* Animal Husbandry 5, 8, and 21, and six hours' credit from 1b, 2b, 4b or 11b; Farm Management 1. See note at beginning of description of courses in animal husbandry.

**30. Genetics.**—Heredity, variation, elements of biometry, and their practical application to breeding. Lectures; demonstrations; laboratory. *II; (5).*

Assistant Professor DETLEFSEN, Mr. ROBERTS

*Prerequisite:* Two years of university work, including ten hours of botany or zoology. Before registering, students must secure the approval of the instructor.

**31. Principles of Animal Nutrition.**—Carbohydrate, fat, protein, and mineral metabolism; income and expenditure of matter and energy; protein, mineral, and energy requirements for maintenance, growth, and production. Lecture; recitations; laboratory. *II; (5).*

Professor GRINDLEY

*Prerequisite:* Animal Husbandry 7, Chemistry 5c.

**32. Marketing Live Stock.**—Markets and methods of marketing live stock and their products; advertising and sale of surplus pedigreed live stock. (Certain inspection trips will be required of the class. The expense will be about \$15.00) *II; (2).*

Professor MUMFORD, Mr. WILCOX

*Prerequisite:* Two years of university work. At least 4 credits in Animal Husbandry 1a, 2a, 4a, and 11a. See note at beginning of description of courses in animal husbandry.

**33. Animal Husbandry Practicums.**—The various operations necessary in the barn and stable management of live-stock. (One hour credit will be given for each two classes of live-stock elected.) *II; \*(1-2).*

Heads of divisions

*Prerequisite:* Limited to senior students specializing in animal husbandry.

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\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 1-2, but 1, or 2.

## Courses for Graduates

Students entering graduate work in animal husbandry must have had training in the fundamental principles of the subject either in connection with or in addition to a curriculum in agriculture equivalent to that offered in this University.

**103. Live-Stock Experimentation.**—Objects, methods, and sources of error in experimental work dealing with the feeding, breeding, and management of farm animals; live-stock experiments at this and other experiment stations. *Once a week; I, II; (½ to 1½ units.)* Professor DAVENPORT

**110. Animal Nutrition.**—The chemical and physiological changes and processes involved in the activities of animal life; recent publications. *Three times a week; I, II; (1 unit).* Professor GRINDLEY, Dr. JOSEPH, Dr. MITCHELL

**111. Animal Nutrition.**—Methods of examination and analysis of feeding stuffs; animal substances including flesh, fat, bone, urine, feces, and manufactured animal products. *Three to five times a week; I, II; (1 to 2 units).*

Professor GRINDLEY

**112. Investigation.**—Investigations along the following lines:

(a) Economic factors involved in meat production.

(b) Systems of live-stock farming.

(c) The valuation of pedigrees. (a), (b) and (c), once a week; I, II; (1 to 2 units). Professor MUMFORD

(d) Animal nutrition. Digestion and metabolism experiments and biochemical studies connected with the nutrition of farm animals. *Five times a week; I, II; (1 to 2 units).* Professor GRINDLEY, Dr. JOSEPH, Dr. MITCHELL

(e) Genetics. Problems in heredity and variation. (May be taken during the summer.) *Five times a week; I, II; (1 to 2 units).*

Assistant Professor DETLEFSEN

**116. Seminar.**—I, II; (½ unit).

Members of the staff

**117. Genetics.**—Genetic experiments; biological and mathematical methods employed; the validity of the conclusions. *Three to five times a week; I, II; (1 to 2 units).*

Assistant Professor DETLEFSEN

## FARM MANAGEMENT

**1. Elementary Farm Management.**—The factors of production in the farm business; systems of farming, their distribution, and adaptation; farm organization; the distribution of capital invested; planning of the farm; farm administration or operation; planning of work; handling of labor; developing management efficiency. Lectures; quiz. (The trip required in this course is the same as in Animal Husbandry 29.) II; (3).

Assistant Professor HANDSCHIN, Mr. WILCOX

**Prerequisite:** Three semesters of required work; Economics 1 or 2 and Accountancy 11. It is also very important that the student have credit or be registered in Agronomy 12, and have at least 6 hours credit from Animal Husbandry 1b, 2b, 4b, or 11b.

## ARCHITECTURE

LORING HARVEY PROVINE, B.S., A.E., *Professor, Architectural Engineering, and Acting Head of the Department*

NATHAN CLIFFORD RICKER, D.Arch., *Professor*

NEWTON ALONZO WELLS, M.P., *Professor, Architectural Decoration*

JAMES McLaren WHITE, B.S., *Professor, Architectural Engineering; Supervising Architect*

PERCY ASH, B.S., C.E., *Assistant Professor, Architectural Design*

WILLIAM CALDWELL TITCOMB, A.B., B.S., *Assistant Professor*

CHARLES RICHARD CLARK, M.Arch., *Assistant Professor, Architectural Construction*

ROBERT TAYLOR JONES, B.S., *Associate*

WILLIAM MATHEWS HEKKING, B.P., *Associate, Freehand Drawing*

JOSEPH MITCHELL KELLOGG, M.Arch., *Instructor, Architectural Design*

WILLIAM SIDNEY WOLFE, M.S., *Instructor, Architectural Design*

RALPH STANLEY FANNING, B.S., *Instructor, Architectural Design*

WILLIAM MACEY STANTON, M.S., *Instructor, Architectural Design*

CARL VICTOR BURGER, B.Arch., *Instructor, Drawing*

LEMUEL CROSS DILLENBACK, A.M., *Instructor, Architectural Design*

RALPH EDWARD MUEHLMAN, *Assistant, Architectural Design*

WINIFRED FEHRENKAMP, B.L.S., *Librarian*

**13, 14, 15, 16.** History of Architecture.—From the Egyptian period to modern times; effects of political, economic, and local conditions; influence of materials, climate, and structural systems in different countries and periods; evolution of architectural forms. Illustrated lectures; quizzes. *I, II; (2).*

Professor RICKER

*Prerequisite:* Sophomore standing in architecture or architectural engineering, or Architecture 31 and 32.

**23-24.** Freehand Drawing.—Charcoal drawing from the cast. Water color work. *Six hours drawing a week. I, II; (2).* Mr. HEKKING

*Prerequisite:* Architecture 32.

**25.** Freehand Drawing.—Arrangement of form and color; rythm and sequence; harmony and contrast. *Six hours drawing a week. I; (2).*

Professor WELLS

*Prerequisite:* Architecture 23-24, and registration in Architecture 65.

**26.** Freehand Drawing.—Charcoal, pen, pencil, and water color drawing from the cast and from still life. Out-of-door sketching. *Six hours drawing a week. II; (2).* Professor WELLS

*Prerequisite:* Architecture 25, and registration in Architecture 66.

**27.** Freehand Drawing.—Sketching from still life; proportions. *Six hours drawing a week. I; (2).* Professor WELLS

*Prerequisite:* Architecture 25 and 26.

**28.** Freehand Drawing.—Water color; original decorative composition; out-of-door sketching. *Six hours drawing a week. II; (2).* Professor WELLS

*Prerequisite:* Architecture 27.

**31.** Architectural and Freehand Drawing.—Instruments, pen, pencil, and brush; lettering; shades and shadows; perspective. Charcoal drawing from the cast. *One lecture and ten hours drawing a week. I; (4).*

Mr. MUEHLMAN, Mr. BURGER

*Prerequisite:* Registration in General Engineering Drawing 2.

**32. Architectural and Freehand Drawing.**—Elements of architecture; walls, moldings, doors, windows, the Orders, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal drawing from the cast. *One lecture and ten hours of drawing a week.* II; (4).  
**Prerequisite:** Architecture 31.  
**Mr. MUEHLMAN, Mr. BURGER**

**33-34. Design.**—(Elementary.) Rendered order and sketch problems involving simple composition; library research in composition. *One lecture and nine hours drafting room a week.* I, II; (3).  
**Assistant Professor TITCOMB, Mr. KELLOGG, Mr. STANTON**

**Prerequisite:** Architecture 31, 32.

**35-36. Design.**—(Intermediate.) Rendered plan and sketch problems; library research in plan and interior elements. *Fifteen hours drafting room a week,* I, II; (5).  
**Assistant Professor TITCOMB, Mr. KELLOGG, Mr. STANTON**

**Prerequisite:** Architecture 33-34.

**37. Design.**—(Advanced.) Problems. *Twenty-one hours drafting room a week.* I; (7).  
**Assistant Professor ASH**

**Prerequisite:** Architecture 35-36.

**38. Advanced Design or Thesis.**—An extended original problem in design or construction. *Twenty-one hours drafting room a week.* II; (7).  
**Assistant Professor ASH**

**Prerequisite:** Architecture 37.

**43. Working Drawings.**—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; detailing parts on a large scale; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish; preparation of working drawings. *Two lectures and four hours drawing a week.* I; (3).  
**Mr. JONES, Mr. FANNING**

**Prerequisite:** General Engineering Drawing 2; Architecture 31, 32.

**44. Working Drawings.**—Materials for masonry construction; their uses, defects, qualities, and preparation; kinds of masonry and external finish; tools for stone cutting; brick masonry, its materials and bonds; terra cotta, manufacture and use; columns, beams, girders, and footings; joints and connections. Working drawings. *Two lectures and four hours drawing a week.* II; (3).  
**Mr. JONES, Mr. FANNING**

**Prerequisite:** General Engineering Drawing 2; Architecture 43.

**45. Graphic Statics.**—(Elementary.) Trussed roofs; steel and masonry arches; domes; reactions, bending moments, shear, and deflection in beams. (For architects.) *One lecture and six hours drawing a week.* I; (3).  
**Mr. WOLFE**

**Prerequisite:** Theoretical and Applied Mechanics 14, 15, 16.

**46. Structures.**—Wooden and steel roofs; determination of section of members; design of joints; mill and steel skeleton construction. *One lecture and six hours drawing a week.* II; (3).  
**Mr. WOLFE**

**Prerequisite:** Architecture 45.

**55. Building Sanitation.**—Plumbing, trap ventilation, removal of wastes; water closets; drains and systems of water supply; sewage disposal; water supply and fixtures in dwellings. (For architects.) Cosgrove's *Principles and Practise of Plumbing.* Recitations; lectures; designs for special problems. I; (1).  
**Assistant Professor CLARK**

**Prerequisite:** Physics 9a-9b, 10a-10b; Architecture 43, 44.

**59. Domestic Architecture.**—(Given in connection with Household Science 2.) Lectures; criticism. *I.*

Assistant Professor ASH, Assistant Professor CLARK, Mr. KELLOGG

**60. Special Lectures.**—(For architects.) *II;* (1).

Assistant Professor CLARK

*Prerequisite:* Senior standing.

**65-66. Theory of Architecture.**—Influence of function on architectural form; plan and elevation; problem analysis. Lectures; research; exercises. *I, II;* (1).

Professor WELLS

*Prerequisite:* Architecture 33, 34, and registration in Architecture 25, 26.

**67. Theory of Proportion.**—Arrangement of form; architectural ornament and composition, proportion, and balance. *Six hours drawing a week.* *I;* (2).

Mr. HEKKING

*Prerequisite:* Senior standing in architecture.

**68. Specifications.**—General and special clauses and their arrangement; classifying material to facilitate writing specifications; practise in writing several sets; relations of the architect, owner, and builder; office organization; building ordinances; professional ethics. *II;* (3). Assistant Professor CLARK

*Prerequisite:* Senior standing in architecture.

#### Courses for Graduates

Entrance upon graduate work in architecture presupposes the full undergraduate curriculum in that subject. Semi-weekly conferences are held and additional instruction given in all courses as may be required.

**101. Architectural Construction.**—Design of special structures. *I, II.* Professor RICKER, Professor PROVINE

**102. Sanitation of Buildings.**—The planning of sanitation, warming, and ventilation. *I, II.* Professor RICKER

**103. Advanced Architectural Graphics.**—Graphic statics. Unusual types of footings, columns, and trusses. *I or II.* Professor RICKER, Professor PROVINE

**104. Architectural Design.**—Advanced course. *I or II.* Assistant Professor ASH

**105. Architectural Practise.**—Contracts, specifications, and office methods; architectural jurisprudence. *I or II.* Professor RICKER, Professor PROVINE

**106. Advanced Architectural History.**—Special research. *I or II.* Professor RICKER

#### ARCHITECTURAL ENGINEERING

**33. Architectural Drawing.**—Lettering; elements of architecture; walls, mouldings, doors, windows, shades and shadows, perspective, the Orders, vaults, roofs, stairs; wash rendering, stereotomy, charcoal, drawing from the cast. Lectures; sketching. *Nine hours drawing a week.* *I;* (3).

Mr. DILLENBACK, Mr. STANTON

**34. Design.**—(Elementary.) Rendered order and sketch problems; library research. *Nine hours drawing a week.* *II;* (3).

Mr. DILLENBACK, Mr. STANTON

**43. Working Drawings.**—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish;

preparation of working drawings. (For architectural engineers.) *One recitation and three hours drawing a week.* I; (2). Mr. JONES, Mr. FANNING

*Prerequisite:* General Engineering Drawing 1, 2.

**44. Working Drawings.**—Materials for masonry construction; their uses, defects, qualities, and preparation; kinds of masonry and external finish; tools for stone cutting; brick masonry; bonds; manufacture and use of terra cotta; columns, beams, girders; joints and connections; preparation of working drawings. *One recitation and three hours drawing a week.* II; (2).

Mr. JONES, Mr. FANNING

*Prerequisite:* Architectural Engineering 43; General Engineering Drawing 2.

**45. Graphic Statics.**—Elements, and applications to forces; beams under fixed and moving loads. *One lecture and six hours drawing a week.* I; (3).

Mr. WOLFE

*Prerequisite:* Theoretical and Applied Mechanics 20; registration in Theoretical and Applied Mechanics 25.

**46. Advanced Graphic Statics.**—The analysis of masonry arches, domes, and vaults; large and unusual forms of roof trusses. *One lecture and six hours drawing a week.* II; (3).

Mr. WOLFE

*Prerequisite:* Architectural Engineering 45.

**47. Architectural Engineering.**—Design and working drawings of trusses, members and joints, plate girders, chimneys; investigations of wind bracing. *Fifteen hours drawing a week or the equivalent.* I; (5).

Assistant Professor CLARK

*Prerequisite:* Theoretical and Applied Mechanics 26; Architectural Engineering 44, 46.

**48. Architectural Engineering.**—Design and detail of footings; investigation of framed structures; working drawings. *Fifteen hours drawing a week or the equivalent.* II; (5).

Assistant Professor CLARK

*Prerequisite:* Architectural Engineering 47.

**57. Fireproof Construction.**—Principles and design of fireproof construction; the advantages of each type. I; (2). Professor PROVINE

*Prerequisite:* Theoretical and Applied Mechanics 26, Architectural Engineering 44, 46, and registration in Architectural Engineering 47.

**58. Fireproof Construction.**—(Continuation of first semester's work.) Details and working drawings. *Six hours drawing a week.* II; (2).

Professor PROVINE

*Prerequisite:* Architectural Engineering 47, 57, and registration in Architectural Engineering 46.

**68. Estimates and Specifications.**—Methods of estimating, illustrated by problems; specifications, their general and special clauses, and arrangement; relations of architect, owner, and builder. *Four recitations a week.* II; (4).

Professor PROVINE

*Prerequisite:* Senior standing in architectural engineering.

**ART AND DESIGN**

**EDWARD JOHN LAKE, B.S., Assistant Professor**

**MARY MINERVA WETMORE, Instructor**

**CHARLES EARL BRADBURY, B.P., Instructor**

**GIDEON ROBERT FORBES, M.L.A., Instructor**

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**MARY HILL, Assistant in the Summer Session**

**1. Freehand Drawing.**—Charcoal and pencil; perspective; light, shadows, shade, and reflections in monochrome; graphical representation and the reproductive processes in printing. Lectures; reference reading. *I or II; (3).*

Assistant Professor LAKE, Mr. BRADBURY, Mr. FORBES

**2. Light and Shade.**—Shaded drawing in monochrome in preparation for painting in oils and water-colors; values and composition. *II; (2).*

Mr. BRADBURY

*Prerequisite:* Art and Design 1.

**3a-3b. Drawing from the Antique.**—Drawing from plaster models and from life of anatomical forms in monochrome in preparation for painting the human figure; anatomical proportion and construction; lectures on proportion, construction, composition, and action in the representation of the human figure. Either semester may be taken separately. *I, II; (3).*

Mr. BRADBURY

*Prerequisite:* Art and Design 1.

**4a-4b. Water Color Painting.**—Still-life; flowers, and sketching outdoors, with application to pictorial and decorative art. *I, II; (3).* Miss WETMORE

*Prerequisite:* Art and Design 1, 2.

**5a-5b. Drawing from Life.**—Monochrome, with application to pictorial and decorative purposes. *I, II; (3).*

Miss WETMORE

*Prerequisite:* Art and Design 1, 3a or 3b.

**6a-6b. Portrait in Oil Colors.**—Painting in oil colors from costumed model; portrait and character study. *I, II; (3).*

Miss WETMORE

*Prerequisite:* Art and Design 1, 3a or 3b, 5a-5b.

**6c. Portrait in Oil Colors.**—(Advanced course). A continuation of *6a-6b. II; (3).*

Miss WETMORE

*Prerequisite:* Art and Design 1, 3a or 3b, 5a-5b.

**7a-7b. Still-Life in Oil Colors.**—Still-life; flowers and sketching outdoors in oil colors, with application to pictorial and decorative art. *I, II; (3).*

Miss WETMORE

*Prerequisite:* Art and Design 1, 2.

**7c. Still-Life in Oil Colors.**—(Advanced course). A continuation of *7a-7b. II; (3).*

Miss WETMORE

*Prerequisite:* Art and Design 1, 2.

**8a-8b. Modeling.**—Clay modeling of anatomical and decorative forms; plaster molds and models; sculptural art. *I, II; (3).* Assistant Professor LAKE

*Prerequisite:* Art and Design 1.

**10. Sketching.**—Pen and pencil; monochrome wash or charcoal rendering from landscape, still-life, and figure; the requirements for reproduction. *I* or *II*; (1). Mr. BRADBURY

*Prerequisite:* Art and Design 1.

**11. Pictorial Design.**—The composition and appreciation of pictures. Lectures with occasional reports. *I* or *II*; (1). Mr. FORBES

**12. Design.**—Lectures on the theory of pure design and the effect of material upon execution; the fitness of various forms of media for different sorts of design; space division and space relations; the theory of color; color schemes and exercises; conventionalization of natural forms for various functions; practise in execution. *I* or *II*; (2). Mr. FORBES

*Prerequisite:* Art and Design 1.

**13. Design.**—(Advanced course). The styles of different periods; theory of pure design with practical problems; lectures and reading on the development of historic ornament. This course is directed toward giving the student a larger vocabulary for expressing himself through design. *I* or *II*; (3). Mr. FORBES

*Prerequisite:* Art and Design 1, 12.

**14. Design.**—(Advanced Practise). Special field and medium selected by the student. *I* or *II*; (3). Mr. FORBES

*Prerequisite:* Art and Design 1, 12, 13.

**19. History of the Fine Arts.**—The periods and styles of the arts of architecture, sculpture, and painting previous to the Italian Renaissance. *I*; (2). Assistant Professor LAKE

*Prerequisite:* One year of college work.

**20. History of the Fine Arts.**—The periods and styles of the arts of architecture, sculpture, and painting of the Italian Renaissance and to the present time. *II*; (2). Assistant Professor LAKE

*Prerequisite:* One year of college work.

#### **Summer Session Courses**

**S 1. Elementary.**—Form drawing from still-life, cast, and nature; outline and shading in pencil, charcoal, and crayon; lectures on perspective. (2). Miss HILL

**S 20. Art for the Common Schools.**—The planning and execution of work in the several divisions of common-school art study; design; blackboard drawing. Lectures on organization, equipment, and the administrative side of the supervisor's work. (For supervisors of drawing and public school teachers.) (2). Miss HILL

## ASTRONOMY

*JOEL STEBBINS, Ph.D., Professor*

*FRANK WALKER REED, Ph.D., Instructor*

*LARS ALVIN WELD, A.M., Research Assistant*

The equipment of the department is contained in the Astronomical Observatory. The principal instruments are a 12-inch refracting telescope by Warner and Swazey, and Brashear, a 30-inch short focus reflector by Brashear, and a 3-inch transit and zenith telescope. There are also two smaller equatorials, two Riefler clocks, and a considerable amount of minor apparatus such as chronometers, transits, sextants, spectrosopes, photometer, photographic outfit, and calculating machines. The astronomical library comprises about 1,500 volumes, and includes the important astronomical periodicals.

No major is offered in astronomy. Students may well make mathematics or physics their major, and take astronomy 7, 8, 14, and 15 as a minor.

Upperclassmen without mathematical training may elect Astronomy 1. Astronomy 4 is for beginners but requires trigonometry. Other courses should be taken in the order: 3, 15, 14, 7, 8.

### Courses for Undergraduates

**1. Elementary Astronomy.**—Lectures; recitations; one evening a week at the observatory. (Mathematics not required.) *I*; (3). Professor STEBBINS  
*Prerequisite:* Sophomore standing.

**3. Astronomy for Engineers.**—Rough and accurate determinations of latitude, azimuth, and time, especially with the ordinary surveyor's transit; the art of computing. *II*; (2). Professor STEBBINS

*Prerequisite:* Mathematics 7.

**4. General Astronomy.**—Lectures; recitations; two evenings a week at the observatory. *II*; (5). Dr. REED

*Prerequisite:* Mathematics 4.

### For Advanced Undergraduates and Graduates

**7-8. Theoretical Astronomy.**—Celestial mechanics; theory of orbits; perturbations; canonical transformations. *I, II*; (3). Dr. REED

*Prerequisite:* Mathematics 9.

**9-10. Celestial Mechanics.**—Properties of canonical systems of differential equations; integration by series; periodic and asymptotic solutions; integral invariants. *I, II*; (3). Dr. REED

*Prerequisite:* Mathematics 16; Astronomy 7-8.

**14. Observational Astronomy.**—The working methods of an astronomical observatory; individual problems. *II*; (3). Professor STEBBINS

*Prerequisite:* Astronomy 15.

**15. Geodetic Astronomy.**—The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey. *I*; (3).

Professor STEBBINS

*Prerequisite:* Mathematics 7.

### Courses for Graduates

**101. Seminar and Thesis.**—*Three times a week; I, II; (1 unit).*

Professor STEBBINS

**102. Stellar Astronomy.**—Orbits of binary stars; variable stars; theoretical photometry. *Three times a week; I, II; (1 unit).* Professor STEBBINS

**BACTERIOLOGY**

(See also BOTANY.)

JOEL ANDREW SPERRY, 2d., Ph.D., *Instructor*FRED WILBUR TANNER, M.S., *Assistant*WILLIAM KEAN ROBINSON, M.S., *Assistant*CECIL ROBERT GROSS, B.S., *Graduate Assistant*

No major is offered for the present in bacteriology.

**Courses for Undergraduates**

**5. Introductory Bacteriology.**—Morphology and physiology of bacteria and related microorganisms; cultivation and observation. *I or II; (5).*

Dr. SPERRY, Mr. TANNER, and assistants

*Prerequisite:* Chemistry 3; junior standing.

**5a. Introductory Bacteriology for Medical Students.**—Similar to course 5, with pathogenic organisms added. Open only to medical or premedical students. *II; (6).*

Dr. SPERRY

*Prerequisite:* Chemistry 2a; junior standing.

**6. Bacteriology for Sanitary Engineers.**—Bacteriological and microscopical examination of water and sewage; filtration, sterilization, and filter control. *I; (2).*

Dr. SPERRY, Mr. TANNER

**For Advanced Undergraduates and Graduates**

**8. Applied Bacteriology.**—Decay of organic matter in nature; soil and sewage bacteria; food bacteria; water bacteria; pathogenic bacteria. *II; (5).*

Mr. TANNER

*Prerequisite:* Bacteriology 5; Chemistry 9, or the equivalent.

**18a-18b. Journal Meeting in Bacteriology.**—(Required of all students specializing in bacteriology.) *I, II; (1).*

Dr. SPERRY

*Prerequisite:* Bacteriology 5.

**19. General Bacteriology.**—(For graduate students in science.) *I or II; (1 unit).*

Dr. SPERRY, Mr. TANNER

**26. Pathological Bacteriology.**—The disease-producing organisms; their effects upon the animal, and the reaction of the host. Lectures; laboratory. *II; (3).*

Dr. SPERRY

*Prerequisite:* Bacteriology 5; Physiology 1.

**27. Epidemiology.**—Transmission and the methods of prevention and control of infectious diseases. *I; (2).*

Dr. SPERRY

*Prerequisite:* Bacteriology 5.**Courses for Graduates**

The work outlined below is open only to graduate students who have had at least one year's work in bacteriology, and satisfactory training in chemistry.

**103. Physiology of Bacteria.**—Fermentation; the growth and death of bacteria. *I; (1 unit).*

Dr. SPERRY

**105. Classification of Bacteria.**—Variability of species; characters; mutations; standard and biometrical classifications. *II; (1 unit).*

Dr. SPERRY

**107. Research in Bacteriology.**—The physiology of bacteria; food bacteriology. *I, II; (1 or 2 units).*

Dr. SPERRY

**BANKING**

(See ECONOMICS.)

**BIOLOGY**

(See BOTANY, ENTOMOLOGY, PHYSIOLOGY, and ZOOLOGY.)

**BOTANY**

(See also BACTERIOLOGY.)

WILLIAM TRELEASE, D.Sc., LL.D., *Professor*THOMAS JONATHAN BURRILL, Ph.D., LL.D., *Professor, Emeritus*CHARLES FREDERICK HOTTES, Ph.D., *Professor*FRANK LINCOLN STEVENS, Ph.D., *Professor*STELLA MARY HAGUE, Ph.D., *Instructor*WALTER BYRON McDougall, Ph.D., *Instructor*JOEL ANDREW SPERRY, 2d., Ph.D., *Instructor (Bacteriology)*ROSALIE MARY PARR, A.M., *Assistant*HARRY DWIGHT WAGGONER, A.M., *Assistant*NORA ELIZABETH DALBEY, A.M., *Assistant*FORREST ELLWOOD KEMPTON, M.S., *Assistant*BERT EDWIN QUICK, A.B., *Assistant*WILLIAM EUGENE PICKLER, A.B., *Assistant*ROBERT LESLEY DAVIS, B.S., *Assistant*FRED WILBUR TANNER, M.S., *Assistant (Bacteriology)*HAROLD DUDLEY CLAYBERG, M.S., *Assistant*LEE ELLIS MILES, A.B., *Assistant*WALTER SPURGEON BEACH, M.S., *Assistant*ESTHER YOUNG, A.M., *Assistant*WILLIAM KEAN ROBINSON, M.S., *Assistant (Bacteriology)*CECIL ROBERT GROSS, B.S., *Graduate Assistant (Bacteriology)*

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ERNEST MICHAEL RUDOLPH LAMKEY, A.M., *Assistant in the Summer Session***Major:** 20 hours exclusive of Botany 1, 4, and 4d, made up of courses grouped along one of five lines, according to the suggestions given below.**Minor:** 20 hours chosen from chemistry, entomology (exclusive of 1a and 1b), geology, physics, physiology, and zoology. At least eight hours must be offered in one subject.

Courses offered are of four types; the first intended to meet the needs of beginners; the second laying a foundation for methods of accuracy in observation, manipulation, and experimentation through the study of some fundamentally important subdivision of the science; the third giving practise in methods of investigation by the study of advanced problems varied to suit the needs and interests of the student; and the fourth teaching independent research by means of thesis subjects leading to the discovery of new facts or laws.

The work of any semester may be credited separately except when a problem is left incomplete in one of the courses open to graduates.

For the convenience of undergraduates in the College of Liberal Arts and Sciences who elect major work in botany the following combinations of courses are suggested:—(a) General; 2a, 3b, 4a, 14a-14b, 23; (b) Specializing in morphology; 2a, 2b, 3a, 4a, 4b, or 4c; (c) Specializing in pathology; 2a or 3a, 7a, 7b,

16a-16b, 4a, or 17a-17b, or 21; (d) Specializing in physiology; 2b, 3a, 3b, 9a, or 9b; (e) Specializing in taxonomy; 2a, 4a or 4b or 4c, 14a-14b, 16a-16b, or 17a-17b. Students taking botany as a foundation for agronomy are advised to select courses 1a, 3a, 3b, 4a, 7a-7b, and advanced work on some special topic or topics under courses 9, 15, or 17a-17b. Students who expect to teach botany are advised to elect 2a, 3b, 4a, 14a-14b, 23, and advanced work in one or more of the special courses 9a-9b, 16a-16b, or 17a-17b.

### Courses for Undergraduates

**1. General Botany.**—The structure, physiology, natural history, and uses of plants. Lectures; quiz; laboratory. *Students are advised to complete elementary chemistry before taking this course. I or II; (5).*

Professor TRELEASE, Dr. McDougall, and assistants

**2a. Morphology of Thallophytes.**—The lower plants. Laboratory. *I; (5).* *Dr. HAGUE*

*Prerequisite:* Botany 1.

**2b. Morphology of Cormophytes.**—The higher plants. Laboratory. *II; (5).* *Dr. HAGUE*

*Prerequisite:* Botany 1.

**3a. Plant Anatomy, Histology, and Technics.**—Plant structure; protoplasts; the nucleus; fixing, sectioning, staining, and examining tissues; modeling from serial sections; photomicrography. *I; (5).* *Professor HORTES*

*Prerequisite:* Botany 1.

**3b. Plant Physiology.**—Applications to forestry and horticulture, and to crop judging and other phases of agronomy. *II; (5).* *Professor HORTES*

*Prerequisite:* Botany 1.

**4. The Local Flora.**—Morphology, identification, and classification of wild plants. Laboratory; field work. (For students desiring acquaintance with the plants of Illinois, and especially for those qualifying as teachers in the public schools.) *II; (3).* *Dr. HAGUE*

*Prerequisite:* Entrance botany or its equivalent.

**4a. Taxonomy of Cormophytes.**—Structure, identification, and classification. Laboratory; field work on flowering plants and weeds. *II; (5).* *Professor TRELEASE*

*Prerequisite:* Botany 1.

**4b. Taxonomy of Algae and Bryophytes.**—Structure, identification, and classification. *I; (5).* *Dr. HAGUE*

*Prerequisite:* Botany 1.

**4c. Taxonomy of Fungi.**—Structure, identification, and classification. *II; (5).* *Professor STEVENS*

*Prerequisite:* Botany 1.

**4d. Trees and Shrubs of the Campus.**—Woody plants used for decorative purposes. *I; (3).* *Professor TRELEASE*

**7a. Plant Pathology.**—Causal agents, symptoms, diagnosis, and treatment. *I; (5).* *Professor STEVENS*

*Prerequisite:* Botany 1.

**7b. Methods in the Study of Fungi.**—Isolation, cultivation, and inoculation of fungi and bacteria. *II*; (5). Professor STEVENS

*Prerequisite:* Botany 1.

**20. Plant Diseases.**—More important diseases of commonly cultivated plants, diagnosis, and treatment. Lectures; laboratory. (Credit in the College of Agriculture only.) *I*; (3). Professor STEVENS

*Prerequisite:* Botany 1.

**21. Crop Diseases.**—Structure, identification, and treatment. *II*; (3). Professor STEVENS

*Prerequisite:* Botany 20 or 7a.

**23. Plant Ecology.**—The life of plants in their natural habitats, and in relation to environment, to animals, and to each other. Lectures; laboratory; field work. *I*; (3). Dr. McDougall

*Prerequisite:* Botany 1.

#### For Advanced Undergraduates and Graduates

Students who take courses open for credit to graduates are advised to register also for course 10a-10b, the weekly meeting devoted to current literature in botany, which is obligatory for candidates for an advanced degree with botany as a major subject.

Candidates for advanced degrees in botany must offer for admission to the graduate courses at least 20 hours in university botany, exclusive of Botany 1, and inclusive of courses 2a, 3b, 4a, and either 7a, 9b, 17a, or 17b, or its equivalent.

Graduate students who elect botany for minor credit must offer the equivalent of 10 hours in university botany, exclusive of Botany 1, as a prerequisite to the courses listed for graduates and advanced undergraduates.

**9a-9b. Plant Anatomy or Physiology.**—Problems for those specializing in anatomy, physiology, or the application of these to plant breeding, crop production, and forestry. *I, II*; \*(3 or 5). Professor HOTTES

*Prerequisite:* 10 hours of botany, including course 3a or 3b, and junior standing.

**10a-10b. Current Botanical Literature.**—Weekly review supplementary to the seminar conferences. *I, II*; (1).

Professor TRELEASE, Professor HOTTES, Professor STEVENS, Dr. HAGUE, Dr. McDougall

*Prerequisite:* Registration in some course in botany open for graduate credit.

**14a-14b. Heredity, Variation, Evolution.**—The cells and members of plants; adaptations and changes; heredity, evolution. *I, II*; (3).

Professor HOTTES

*Prerequisite:* 10 hours of botany, and junior standing.

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 3-5, but 3, or 4, or 5.

**16a-16b. Taxonomy and Ecology of Thallophytes.**—Advanced practise on selected groups: (1) Algæ and Bryophytes; (2) Fungi. *I, II; \*(3 or 5).*  
 (1) Dr. HAGUE; (2) Professor STEVENS, Dr. McDougall

*Prerequisite:* 10 hours of botany, including either course 2a or 4b for Algæ and Bryophytes, or 4c or 7a for Fungi, and junior standing.

**17a-17b. Taxonomy and Ecology of Cormophytes.**—Advanced practise on selected taxonomic, ecological, or economic groups. Genera or families of Illinois plants, ecological association or adaptations, or plants economically important as weeds, forest resources, adjuncts to medicine, farm, orchard, or garden crops, or as the basis of floriculture, landscape architecture, street shading, or other decorative planting. *I, II; \*(3 or 5).* Professor TRELEASE

*Prerequisite:* 10 hours of botany, including course 4a, and junior standing.

**22a. Morbid Histology.**—The parasites of plant tissues and their histology in condition of disease. *I; \*(3 or 5).* Professor STEVENS

*Prerequisite:* Botany 3a, and 7a or 7b, and junior standing.

**22b. Groups of Fungi and Crop Diseases.**—*II; \*(3 or 5).* Professor STEVENS

*Prerequisite:* 10 hours of botany, including 7a, or 7b, and junior standing.

#### Courses for Graduates

**101. Cytology.**—The influence of external agents on the cell. Special subjects for investigation. Reports; discussions of current literature and research results. *I, II; (1 or 2 units).* Professor HOTTES

**102. Physiology.**—The effects of external stimuli on growth and movement. Special subjects for investigation. Reports; discussions of current literature and research results. *I, II; (1 or 2 units).* Professor HOTTES

**104. Mycology.**—Fungi. Individual assignments of subjects and problems in field and laboratory. *I, II; (1 or 2 units).* Professor STEVENS

**106. Plant Pathology.**—Diseases of plants, and disease agents. Special subjects. *I, II; (1 or 2 units).* Professor STEVENS

**108. Taxonomy.**—Monographic studies of critical groups. *I, II; (1 or 2 units).* Professor TRELEASE

#### Summer Session Courses

**S 3b. Plant Physiology.**—Physiological processes of plants; the production of organic matter. Field trips; laboratory. (5). Professor HOTTES, Mr. LAMKEY

*Prerequisite:* Entrance credit in botany or Botany 1.

**\*S 9a-9b. Plant Anatomy or Physiology.**—For description see Botany 9a-9b. \*(3 or 5). Professor HOTTES

*Prerequisite:* 10 hours of botany, including Botany 3a or 3b, and junior standing.

**\*S 102. Physiology.**—For description see Botany 102. ( $\frac{1}{2}$  or 1 unit). Professor HOTTES

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**BUSINESS LAW**

(See BUSINESS ORGANIZATION AND OPERATION.)

**BUSINESS ORGANIZATION AND OPERATION**

(Including ACCOUNTANCY and BUSINESS LAW)

LEWIS EMANUEL YOUNG, Ph.D., Assistant Professor

WILLIAM ARTHUR CHASE, LL.M., C.P.A., Lecturer, in charge of work in Accountancy

ROBERT ENOCH HIERONYMUS, A.M., LL.D., Community Adviser (lecturer on commercial and civic organizations)

HIRAM THOMPSON SCOVILL, A.B., Instructor

HARRISON McJOHNSTON, A.M., Instructor

WILLIAM B CASTENHOLZ, A.M., C.P.A., Instructor

ANANIAS CHARLES LITTLETON, A.B., Instructor

EDWARD FREDERICK NICKOLEY, A.M., Assistant

ROGER FRANK LITTLE, A.B., LL.B., Lecturer, Business Law

**A. ACCOUNTANCY****Courses for Undergraduates**

**1a-1b. Principles of Accounting.**—Accounting and bookkeeping. Accounting procedure from single to double entry, from individual accounts to partnership, corporation, and other accounts. (Credit for graduation is not given for either semester separately.) *I, II; (3).*

Mr. CHASE, Mr. SCOVILL, Mr. LITTLETON, Mr. NICKOLEY

**2a-2b. Advanced Accounting and Auditing.**—Problems in accounting, the valuation of good will, depreciation, sinking funds, investments, partnership, adjustments, and resources. (Credit is not given for either semester separately.) *I, II; (3).*

Mr. CHASE, Mr. SCOVILL

*Prerequisite:* Accountancy 1a-1b; Economics 7 or 26, 22 or 27; and registration or credit in Economics 1.

**3a-3b. Accounting Problems and Auditing.**—(Must be taken throughout the year in order to secure credit.) *I, II; (3).*

Mr. CHASE

*Prerequisite:* Accountancy 2a-2b, Economics 3, and credit or registration in Business Organization and Operation 1 and 2.

**4a-4b. Cost Accounting.**—(a) Cost accounting applied to factory procedure, overhead expense, the installation and control of cost systems, presentation of cost data; (b) cost accounting as a basis for manufacturing efficiency; (c) the construction of cost systems. *I, II; (3).*

Mr. CASTENHOLZ

*Prerequisite:* Accountancy 1a-1b, Economics 1.

**10. Shop Management and Shop Cost Records.**—Cooperation between shop and cost departments; preparation and use of cost records; estimation of costs on contracts and calculation of profits. *II; (2).*

Mr. SCOVILL

*Prerequisite:* Open only to students in engineering who have had Economics 1 or 2.

**11. Farm Accounting.**—Accounting and distribution of costs as applied to farm operations; proper investment of funds. *I; (3).*

Mr. SCOVILL

*Prerequisite:* Open only to students in agriculture who have had Economics 1 or 2.

**12. Commercial Administrative Accounting.**—Accounts of corporations and partnerships; tabular bookkeeping; accounts of branches; adjustment accounts; organization of accounts; application and allotments; reserves and depreciation; expenses; profits; dividends; income tax; balance sheets; the interpretation of accounts. *I*; (2).

Mr. CHASE

*Prerequisite:* Accountancy 1a-1b, Economics 1.

**13. Municipal Accounting.**—Municipal balance sheets and revenue accounts; cash book; journal; ledger; subsidiary books and rolls; passing accounts; warrants; vouchers; striking the rate; school accounts; bonds and sinking funds; budgets. *II*; (2).

Mr. CHASE

*Prerequisite:* Accountancy 1a-1b, Economics 1.

#### Summer Session Course

**S 15. Practise or High-school Teaching.**—Not accepted in partial fulfillment of the requirement of Accountancy 1 in any university curriculum. (2).

Mr. SCOVILL

*Prerequisite:* Elementary bookkeeping.

### *B. BUSINESS ORGANIZATION AND OPERATION*

#### Courses for Undergraduates

**1. Business Organization and Operation.**—Individual proprietorship, partnership, and corporation; the process of organizing a business; organization for operation and the reaction of form of organization on efficiency; gradation and interrelation of divisions and departments; departmental responsibility and authority, routine, and discipline. *I*; (3). Assistant Professor YOUNG

*Prerequisite:* Economics 1 and Accountancy 2a-2b. For the present year students who have had Accountancy 1a-1b may be admitted on application to the instructor.

**NOTE:** The course is not open to students who have had the former Economics 6.

**2. Organization and Control of Mercantile Distribution.**—Typical distributive businesses; organization and administration of wholesale and retail establishments and commission houses. Cooperation in buying and selling; trade marks and patents; shipping combinations; trade agreements. *II*; (3).

Assistant Professor YOUNG

*Prerequisite:* Business Organization and Operation 1 or, for the present year, former Economics 6.

**3. Business Procedure.**—Conventional business practises; cash and trade discounts; commissions; interest and discounts; forms and uses of checks, notes, drafts, and other instruments of credit and exchange; the rules and procedure of banking institutions; mercantile and credit agencies. Office organization and management. *I*; (2). Assistant Professor YOUNG

*Prerequisite:* Business Organization and Operation 2. For the present year Economics 10 and Accountancy 1a-1b will be accepted instead of Business Organization and Operation 2. Senior engineering students who have had Economics 1 or 2 may be admitted by permission of the instructor.

**4. Industrial Organization and Management.**—Problems of organization and of administrative policy; supervision and management of industries and industrial units. Relations to labor, the community, and law. *II*; (2).

Assistant Professor YOUNG

*Prerequisite:* Business Organization and Operation 2. For the present year Economics 10 and Accountancy 1a-1b will be accepted instead of Business Organization and Operation 2. Senior engineering students who have had Economics 1 or 2 may be admitted by permission of the instructor.

**7. Salesmanship.**—Policies and practise of modern sales organizations; selling problems of manufacturers, wholesalers, and retailers; management of salesmen; the practise of individual salesmen. *I*; (3). Mr. McJOHNSTON

*Prerequisite:* Economics 1 and Business Organization and Operation 1. For the present year former Economics 6 will be accepted in place of Business Organization and Operation 1.

**8. Advertising.**—Current practise; cooperation of advertising and personal selling; special problems; planning sales campaigns; choice of media; space buying and practise in writing copy. *II*; (3). Mr. McJOHNSTON

*Prerequisite:* Business Organization and Operation 7.

**9. Commercial and Civic Organizations.**—(For students preparing for positions as secretaries of commercial or agricultural associations, civic or welfare clubs, and similar organizations). The history of trade and similar organizations; methods of organization; expansion and promotion; the relation of such associations to the life and welfare of the community and to one another; promotion of community welfare by common action; work and duties of the secretary and other officers; the legal status and recent results. *II*; (1).

Dr. HIERONYMUS

*Prerequisite:* Economics 1 and Business Organization and Operation 2 (for the present year former Economics 6 will be accepted instead of Business Organization and Operation 2); or Economics 2 and Farm Management 1; or Economics 1, Political Science 4, and Sociology 8.

### C. BUSINESS LAW

#### Courses for Undergraduates

**1a-1b. Commercial Law.**—The law of contracts, negotiable instruments, agency, partnerships, business corporations, sales of personal property, bailments and carriers, guaranty and suretyship, and insurance. *I, II*; (3).

Assistant Professor YOUNG

*Prerequisite:* Sixty hours of university credit, including Economics 1 and Accountancy 1a-1b.

**2. Elementary Law.**—Contracts, leases, landed property, etc. (Open to junior and senior students in Agriculture only). *II*; (3). Mr. LITTLE

*Prerequisite:* Economics 2.

## CERAMIC ENGINEERING

ALBERT VICTOR BLEININGER, B.S., *Professor*

RALPH KENT HURSH, B.S., *Associate*

BARNEY S RADCLIFFE, M.S., *Instructor*

ARTHUR EDWARDS WILLIAMS, B.S., *Instructor*

RALPH RAYMOND DANIELSON, B.S., *Assistant*

CHARLES FRANCIS GEIGER, B.S., *Assistant*

The courses offered by the department of ceramic engineering are designed to give a technical knowledge of the composition and properties of materials used in the manufacture of claywares, cements, glasses, and enamels, and to acquaint the student with the construction, equipment, and operation of ceramic plants.

### Courses for Undergraduates

**1. Ceramic Materials.**—The properties of clays and other ceramic materials; identification of the varieties met in practical work. Lectures; laboratory. *II*; (3). Mr. WILLIAMS

*Prerequisite:* Chemistry 4.

**2. Winning and Preparation of Clays.**—Machinery and processes used in preparing clays for market or manufacture; cost data. *I*; (3). Mr. RADCLIFFE

*Prerequisite:* Chemistry 5b, Ceramic Engineering 1.

**3. Industrial Calculations.**—Chemical and physical calculations applying to the operation of furnaces, kilns, and dryers; temperature measurements; ceramic stoichiometry. *I*; (3). Mr. HURSH

*Prerequisite:* Ceramic Engineering 1; Chemistry 5b; Physics 1a-1b and 3a-3b.

**4. Drying and Burning.**—Chemical and physical processes; types of construction and methods of operation of industrial dryers and kilns. *I*; (4). Professor BLEININGER

*Prerequisite:* Ceramic Engineering 1, 3.

**5. Ceramic Bodies.**—Composition and properties of ceramic body mixtures; effects of various ingredients; development of special bodies. Lectures; laboratory. *II*; (5). Mr. RADCLIFFE

*Prerequisite:* Ceramic Engineering 1, 2, 3.

**6. Glazes.**—Production of glazes and enamels; limits of composition; classification; properties and defects common to each class; effect of variation in composition; modes of application. Lectures; laboratory. *I*; (5). Professor BLEININGER, Mr. DANIELSON

*Prerequisite:* Ceramic Engineering 3, 4, 5.

**8. Glass.**—Raw materials, preparation, compounding, melting, and shaping; chemical principles involved in the manufacture and decoration of types of vitreous silicates. Lectures. *II*; (2). Mr. WILLIAMS

*Prerequisite:* Ceramic Engineering 3, 4, 5, 6.

**9. Ceramic Construction.**—Plans, specifications, and estimates for ceramic equipments and industrial plants. *II*; (4). Mr. HURSH

*Prerequisite:* General Engineering Drawing 2; Ceramic Engineering 3, 4.

10. **Cements.**—Cements, limes, plasters; composition; reactions; methods of manufacture and testing. *I*; (3). Mr. HURSH

*Prerequisite:* Ceramic Engineering 1, 2, 3.

11. **Thesis.**—*II*; (3). Professor BLEININGER, Mr. HURSH, Mr. WILLIAMS

12. **Designing and Shaping.**—The standpoint of the manufacturer; die construction; templates; master and working molds for pressing, casting, and jiggering. *II*; (3). Mr. RADCLIFFE, Mr. DANIELSON

*Prerequisite:* Ceramic Engineering 1.

13. **Cement Laboratory.**—Preparation of cementing substances; properties and reactions involved. *II*; (3). Mr. HURSH

*Prerequisite:* Ceramic Engineering 10.

14. **Cement Laboratory.**—The production of waterproof and sea resisting cements; cement colloids; polychrome pigments for fresco decoration; cement colors; cold water paints. *II*; (3). Mr. HURSH

*Prerequisite:* Ceramic Engineering 10.

15. **Glass Laboratory.**—Soda-lime, potash-lime, lead, barium, and zinc silicates; boro-silicates; properties of fused and solidified glasses; practical glass problems. *I*; (3). Mr. WILLIAMS

*Prerequisite:* Ceramic Engineering 6, 8.

16. **Glasses and Enamels.**—(Continuation of Ceramic Engineering 15.) Opaque, colored, and optical glasses; enameling of metals. *II*; (3).

*Prerequisite:* Ceramic Engineering 15.

17. **Silicates.**—Formation; properties; experimental methods. *II*; (3). Mr. HURSH

*Prerequisite:* Ceramic Engineering 1, 3.

#### Courses for Graduates

Registration in graduate courses in ceramic engineering presupposes the full undergraduate curriculum in that subject, or sufficient training in allied subjects to warrant the expectation that the student will be able to do the work elected.

Graduates of curriculums other than ceramic engineering who have the necessary prerequisites may take the following courses for minor credit: 3, 5, 6, 8, 10, 13, 14, 15, 16.

101. **The Formation of Silicates.**—*I*; (*1 to 2 units*).

Professor BLEININGER

102. **Technology of the Clay Industries.**—Mineralogical constitution of clays; plasticity and the colloidal state; pyro-chemical and physical changes; composition and constitution of bodies, glazes, and enamels. *II*; (*1 to 2 units*).

Professor BLEININGER

103. **Technology of Cements.**—Composition; constitution; hydration and dehydration of cementing compounds; catalysts. *II*; (*1 to 2 units*).

Professor BLEININGER

104. **Technology of Glass.**—Glassy silicates; limiting compositions; physical and chemical properties of glasses. *II*; (*1 to 2 units*).

Professor BLEININGER

## CHEMISTRY

WILLIAM ALBERT NOYES, Ph.D., LL.D., *Professor and Director*  
 SAMUEL WILSON PARR, M.S., *Professor*  
 HARRY SANDS GRINDLEY, D.Sc., *Professor*  
 EDWARD BARTOW, Ph.D., *Professor*  
 CLARENCE WILLIAM BALKE, Ph.D., *Professor*  
 EDWARD WIGHT WASHBURN, Ph.D., *Professor*  
 DAVID FORD McFARLAND, Ph.D., *Assistant Professor*  
 GEORGE MCPHAIL SMITH, Ph.D., *Assistant Professor*  
 CLARENCE GEORGE DERICK, Ph.D., *Assistant Professor*  
 HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor*  
 DUNCAN ARTHUR MACINNES, Ph.D., *Associate*  
 GEORGE DENTON BEAL, Ph.D., *Associate*  
 B SMITH HOPKINS, Ph.D., *Associate*  
 HOWARD BISHOP LEWIS, Ph.D., *Associate*  
 HENRY JOHN BRODERSON, Ph.D., *Instructor*  
 CHARLES HENRY HECKER, Ph.D., *Instructor*  
 GEORGE WALLACE SEARS, Ph.D., *Instructor*  
 HUBERT LEONARD OLIN, Ph.D., *Instructor*  
 JESSIE YEREANCE CANN, Ph.D., *Instructor*  
 \*HARRY PEACH CORSON, Ph.D., *Instructor*  
 OLIVER KAMM, Ph.D., *Instructor*  
 GERARD VAN ROSEN, Ph.D., *Instructor*  
 LAURENCE CRANE JOHNSON, Ph.D., *Research Assistant*  
 RAYMOND WASHINGTON HESS, A.B., *Assistant*  
 HARRY CLEVELAND KREMERS, M.S., *Assistant*  
 ERNEST EDWARD CHARLTON, M.S., *Assistant*  
 EDWIN ARTHUR REES, A.M., *Assistant*  
 ROSS EARLBY GILMORE, A.M., *Assistant*  
 SILAS ALONZO BRALEY, M.S., *Assistant*  
 RALPH WALDO TIPPET, A.M., *Assistant*  
 JOHN FREDERICK GROSS HICKS, B.S., *Assistant*  
 GLENN SEYMOUR SKINNER, A.M., *Assistant*  
 JAY THOMAS FORD, A.B., *Assistant*  
 TERRENCE ONAS WESTHAEFER, A.B., *Assistant*  
 CARL NATHAN DAVIDSON, A.B., *Assistant*  
 DON WARREN BISSELL, B.S., *Assistant*  
 WALTER GERALD KARR, B.S., *Assistant*  
 ERNEST HENRY VOLLWEILER, A.B., *Assistant*  
 FRANK F FOOTITT, A.B., *Assistant*  
 JOSEPH MARVIN BRAHAM, M.S., *Assistant*  
 ALBERT WAFFLE OWENS, B.S., *Assistant*  
 FLOYD ELBA ROWLAND, A.M., *Assistant*  
 WILLIAM ALEXANDER VANWINKLE, B.S., *Assistant*  
 SCOTT CHAMPLIN TAYLOR, M.S., *Assistant*  
 HENRY JOSEPH WEILAND, M.S., *Research Assistant*  
 PAUL ANDERS, *Assistant, Glass Blowing*  
 ALBERT DURAND SHEPARD, B.S., *Graduate Assistant*  
 HARRY GLENN PORTZ, B.S., *Graduate Assistant*  
 HENRY RHODES LEE, A.B., *Graduate Assistant*

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\*Resigned, December 1, 1915.

JAMES KEEL REED, A.B., *Graduate Assistant*  
RUTH ELIZA OKEY, M.S., *Graduate Assistant*  
HERBERT AUGUST WINKELMANN, M.S., *Graduate Assistant*  
LLOYD HILTON REYERSON, B.S., *Graduate Assistant*  
HARRY JAMES BEATTIE, A.M., *Graduate Assistant*  
MARY VANRENSSELAER BUELL, A.B., *Graduate Assistant*  
LEONARD FRANCIS YNTEMA, A.B., *Graduate Assistant*  
RALPH WILLIAM HUFFORD, A.B., *Graduate Assistant*  
\*LORAN OGDEN POTTER, A.M., *Graduate Assistant*  
ALFRED RICHARD POWELL, A.M. *Graduate Assistant*  
LANSING SADLER WELLS, B.S., *Graduate Assistant*  
HELEN UPDEGRAFF, B.S., *Graduate Assistant*  
WILLIAM ROBERT BRUCE, A.B., *Graduate Assistant*  
LOUIS JORDAN, A.B., *Graduate Assistant*  
MARGARET CAMPBELL PERRY, A.B., *Graduate Assistant*  
JOHN BERNIS BROWN, B.S., *Graduate Assistant*  
JAMES HARRIS OLEWINE, B.S., *Graduate Assistant*

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CHARLES GEORGE MACARTHUR, A.M., *Assistant in the Summer Session*  
DAVID PRESTON HOLLIS, *Assistant in the Summer Session*

**Major:** 20 hours, exclusive of Chemistry 1, 1a, 1b, 4, and 16, and inclusive of courses in quantitative and organic chemistry.

**Minor:** 20 hours, chosen from bacteriology, botany, geology, mathematics, philosophy, physiology, physics, and zoology.

Students taking chemistry at the University are advised to give at least one year to the subject, and this should include Chemistry 1 or 1a, 2a, or 3a. Those continuing in the second year should take Chemistry 5a and 5b, 5c or 13a. In the third year Chemistry 14 or 9, 9a, and 9b, or 9c, 31, and 33 should be taken. With these, more special courses may be taken if desired, but, in general, students are not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial applications, will naturally follow the curriculum in chemistry or the curriculum in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register for Chemistry 1 or 1a in the second semester rather than in the first.

**1. Inorganic Chemistry.**—The non-metallic elements. Noyes's *Text-book of Chemistry. I or II;* (5).

Professor BALKE in charge: Professor NOYES, Dr. HOPKINS, Dr. HECKER, Dr. SEARS, Dr. CANN, and assistants

**NOTE:** Students who have credit for high school chemistry should register for Chemistry 1a.

**1a. Inorganic Chemistry.**—Lectures; recitations; laboratory. (For students who have had one year of high school chemistry.) *I or II;* (3).

Professor BALKE in charge: Professor NOYES, Dr. HOPKINS, Dr. HECKER, Dr. SEARS, Dr. CANN, and assistants

**Prerequisite:** One year of entrance chemistry. Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 1.

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\*Deceased, January 3, 1916.

**1b. Inorganic Chemistry.**—Lectures; recitations; laboratory. (For students in engineering). *I or II*; (4).

Professor BALKE in charge: Professor NOYES, Dr. HOPKINS, Dr. HECKER, Dr. SEARS, Dr. CANN, and assistants

NOTE: Students who have credit for high school chemistry should register for Chemistry 1a.

**2a. Inorganic Chemistry and Qualitative Analysis.**—The general chemistry and qualitative analysis of the more common metals and inorganic compounds. Lectures; recitations; laboratory. *I or II*; (5).

Professor BALKE, Assistant Professor WEBBER, Dr. HOPKINS, Dr. HECKER, Dr. SEARS, Dr. CANN, and assistants

Prerequisite: Chemistry 1 or 1a.

**3a. Inorganic Chemistry and Qualitative Analysis.**—(For students in chemistry and chemical engineering.) *I or II*; (6). Professor BALKE, Dr. SEARS

Prerequisite: Chemistry 1 or 1a.

**4. Qualitative Analysis and Chemistry of the Metallic Elements.**—Lectures; laboratory. (For students in engineering.) *I or II*; (4).

Assistant Professor WEBER in charge; Dr. HOPKINS, Dr. CANN, Dr. SEARS, and assistants

Prerequisite: Chemistry 1a or 1b.

**5a. Elementary Quantitative Analysis.**—Gravimetric and volumetric analysis; stoichiometrical relations. Lectures; recitations; laboratory. Talbot's *Quantitative Chemical Analysis*. *I or II*; (5). (4 for mining engineers).

Assistant Professor SMITH in charge: Dr. OLIN, and assistants

Prerequisite: Chemistry 5a or 3a.

**5b. Quantitative Analysis.**—Continuation of 5a. The analysis of silicates, metallic compounds, and alloys; advanced qualitative analysis. Lectures; recitations; laboratory. Treadwell-Hall: *Analytical Chemistry*, Vol. II. *II*; (5).

Assistant Professor SMITH in charge

Prerequisite: Chemistry 5a.

**5c. Food Analysis.**—Quantitative organic analysis; examination of food products: alcohols, carbohydrates, fats and oils, cereals, nitrogenous bodies, preservatives, and colors. Sherman's *Organic Analysis*; Sherman's *Food Products*; "Bulletin 107, rev., U. S. Bureau of Chemistry." *II*; \*(3 to 5). Dr. BEAL

Prerequisite: Chemistry 5a or 13a; 9 or 14a-14b.

**6†. Chemical Technology.**—Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; recitations. Rogers and Aubert's *Industrial Chemistry*. *II*; (3). Assistant Professor MCFARLAND

Prerequisite: Chemistry 5a and 14a-14b.

**7†. Metallurgy.**—General metallurgy; iron and steel. Lectures; assigned reading; recitations. Fulton's *Principles of Metallurgy*; Stoughton's *Iron and Steel*. *I*; (3). Assistant Professor MCFARLAND

Prerequisite: Chemistry 5a. (Senior students in engineering courses may be admitted to this course by special arrangement, without this prerequisite).

\*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

†Certain required inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will approximate \$15.00 for each course.

**7a. Metallurgy of the Non-Ferrous Metals.**—Copper, lead, zinc, gold, and silver. *II*; (3). Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 5a or 13a.

**[8. Iron and Steel Analysis.]**—Analyses of all the constituents by both rapid, or technical, and standard methods. *II*; (3). Not given, 1915-16.

Assistant Professor SMITH

*Prerequisite:* Chemistry 5b.]

**9. Organic Chemistry.**—The more typical and simple organic compounds; important derivatives of carbon. (For students of the medical preparatory and household science curriculums and others desiring a short course.) *II*; (3). Assistant Professor DERICK

*Prerequisite:* Chemistry 2a or 3a; registration in chemistry 9c; or equivalent.

**9a. Organic Synthesis and Ultimate Analysis.**—Ultimate organic analysis; preparation of typical organic compounds. Laboratory. *I* or *II*; (2).

Assistant Professor DERICK, Dr. KAMM, and assistants

*Prerequisite:* Registration in Chemistry 14a-14b, or equivalent.

**9b. Organic Synthesis and Qualitative Organic Analysis.**—Continuation of 9a, to accompany Chemistry 14b. *I* or *II*; (2).

Assistant Professor DERICK, Dr. KAMM, and assistants

*Prerequisite:* Chemistry 9a; registration in Chemistry 14b, or equivalent

**9c. Organic Synthesis.**—Typical organic compounds. Laboratory. (For students in the medical preparatory and household science curriculums and others desiring a brief course.) *II*; (2).

Assistant Professor DERICK, Dr. KAMM, and assistants

*Prerequisite:* Chemistry 2a or 3a; registration in Chemistry 9, or equivalent.

**10a. Water Chemistry.**—The history, sources, contamination, and standards of purity of potable waters and waters for industrial purposes. Lectures; practise in analytical methods. *II*; (3). Professor BARTOW

**10b. Water Chemistry.**—(A modification of 10a for students in sanitary engineering, registered in connection with Chemistry 2a.) *II*; (1½).

Professor BARTOW

**11a-11b. Research.**—Thesis, embodying a review of the literature of the subject; account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required for seniors.) *I, II*; (5).

Professor NOYES in charge

**13a. Elementary Quantitative Analysis.**—Gravimetric and volumetric; fertilizer and milk analysis. Lectures; recitations; laboratory. Talbot's *Quantitative Chemical Analysis*. (For students in agriculture.) *I* or *II*; (5).

Assistant Professor SMITH in charge, Dr. OLIN, Dr. BEAL, and assistants

*Prerequisite:* Chemistry 2a, or 3a.

**13b. Advanced Agricultural Analysis.**—Fungicides, limestone, phosphate rock, fuel, and water; determination of the alkali metals; special methods. Treadwell-Hall, *Analytical Chemistry*, Vol. II. (For students specializing in agricultural chemistry or agricultural experiments.) *II*; (5).

Dr. BEAL in charge

*Prerequisite:* Chemistry 5a or 13a.

**14a-14b. Organic Chemistry.**—Lectures; recitations. *Noyes's Organic Chemistry. I; (4) : II; (2).* Professor NOYES

*Prerequisite:* Chemistry 5a; should be accompanied by Chemistry 9a and 9b.

**15. Physiological Chemistry.**—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic-digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the clinical aspects of these topics treated thoroly for prospective students of medicine. Lectures; demonstrations; conferences; practical work; assigned reading. Mathew's *Psysiological Chemistry*; Hawk's *Practical Physiological Chemistry*. (Open to graduates and undergraduates.) *I; \*5 or 7.* Dr. LEWIS

*Prerequisite:* Two years' work in chemistry, including 9 and 9c or 14a, 14b, 9a and 9b.

**15a. Problems of Metabolism.**—Colloids; animal oxidations; osmosis; adsorption; selective activity of cells; metabolism; activities of gastro-intestinal tract; enzymes; inorganic nutrition. Lectures; demonstrations; conferences. *II; (2).* Dr. LEWIS

*Prerequisite:* Chemistry 15.

**16. Chemistry for Engineers.**—The proximate analysis of coal; determination of calorific power; technical analysis of furnace gases; examination of boiler waters; lubricating oils. (For mechanical engineers.) *II; (3).*

Professor PARR, Dr. BRODERSON

*Prerequisite:* Chemistry 1.

**17. Teachers' Course.**—Methods of teaching elementary chemistry. *I; (1).* Professor BALKE

**21. Qualitative Organic Analysis.**—Identification of pure organic compounds and mixtures. *I or II; (2).* Assistant Professor DERICK, Dr. KAMM

*Prerequisite:* Chemistry 9a, 9b; or equivalent.

**22. Animal Chemistry (Animal Nutrition).**—The chemical composition of animal products and feeding stuffs. Lectures; conferences; assigned reading; laboratory. *I or II; (5).* Professor GRINDLEY

*Prerequisite:* Two years' work in chemistry.

**27. Qualitative Analysis of the Rare Elements.**—The rare elements and their compounds; identification and separation of the elements; formation, solubilities, and chemical reactions of their salts. Assigned reading; laboratory. *II; (3).* Professor BALKE

*Prerequisite:* Two years' work in chemistry.

**31. Elementary Physical Chemistry.**—Physical chemistry and electrochemistry. Lectures; recitations; problems. *Washburn's Introduction to the Principles of Physical Chemistry. II; (4).* Professor WASHBURN

*Prerequisite:* Chemistry 1, 2, 3; Physics 1a-1b or 7a-7b; Mathematics 7 or 8.

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**33. Elementary Physical Chemistry.**—Molecular weight of gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phenomena within the solution; thermochemistry. (Laboratory to accompany course 31.) *II*; (2). Dr. MACINNES, Dr. VAN ROSEN

*Prerequisite:* Chemistry 5a; Physics 8a-8b or 3a-3b.

**35. Electrochemistry.**—(A continuation of Chemistry 31. See also Chemistry 102b.) Theory and application. Lectures; recitations; laboratory. Allmand's *Applied Electrochemistry. I*; (3). Dr. MACINNES

*Prerequisite:* Chemistry 31, 33.

**36. The Phase Rule and Its Applications.**—Equilibria in heterogeneous systems. Lectures; seminar. *II*; (2). Dr. HECKER

*Prerequisite:* Chemistry 31, 33; Mathematics 8 or 7 and 9.

**37. Experimental Problems in Physical and Electrochemistry.**—Laboratory; conferences. *I*; (4). Professor WASHBURN, Dr. MACINNES

*Prerequisite:* Chemistry 35 or 102b.

**61. Industrial Chemistry Laboratory.**—The preparation and purification of chemical products from raw materials on a scale sufficient to afford data for determining the economy of the processes employed. Typical forms of chemical machinery: filter presses, vacuum pan, centrifugal separators, steam jacketed kettles; reports and estimates upon apparatus and plant for the production of some particular product on a commercial scale. (Should be accompanied by either Chemistry 6 or 109.) *II*; (3). Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 5a and 14a-14b.

**65. Technical Gas and Fuel Analysis.**—Examination of gases, gas mixtures, flue gases and fuels; determination of calorific values; calculation of efficiencies. *I*; (2). Dr. BRODERSON

*Prerequisite:* Chemistry 5a.

**66. Technology of Gases.**—The manufacture, constituents, and uses of the various forms of gaseous fuel; calorimetry; photometry; the more exact methods of analysis. Lectures; reading; reports; laboratory. *II*; (1). Dr. BRODERSON

*Prerequisite:* Chemistry 65.

**69. Metallurgical Laboratory and Assaying.**—The fire assay of gold, silver, lead, and copper ores, mattes, and bullion; special experiments; fluxes, slags, and charge calculations; coal, oil, and gas furnaces; measurement of high temperatures. Fulton's *Manual of Fire Assaying. I*; (2).

Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 5a.

**70. Advanced Assaying and Ore Testing.**—Ores of platinum, tin, copper; bullion assay; free milling, amalgamation, and cyaniding tests. (A continuation of Chemistry 69.) *II*; (2). Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 69.

**71. Advanced Methods of Metallurgical Analysis.**—Laboratory. *I*; (2).

Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 5b.

**72. Paints, Oils, Turpentines, Varnishes, and Protective Coverings for Wood and Metals.**—Lectures; laboratory. I; (2). Professor PARR

*Prerequisite:* Chemistry 5a and 14a-14b.

**73. Asphalt, Tar, Petroleum, Residues, and Creosote Oils.**—Sources, characteristics, composition, and examination; materials used in road construction; wood preservation. (For students in highway engineering.) II; (2).

Professor PARR

*Prerequisite:* Chemistry 3 or 4.

**76. Calorimetry of Fuels.**—The heat values of solid, liquid, and gaseous fuels. (An advanced course.) II; (2). Professor PARR, Dr. BRODERSON

*Prerequisite:* Chemistry 65.

**77. Composition and Classification of Coal.**—Classification, changes in composition, weathering, spontaneous combustion, formation of mine gases. Lectures; assigned reading. II; (1).

Professor PARR

*Prerequisite:* Chemistry 65.

**78. Metallography.**—Constitution and microstructure of metals and alloys and the relations between their properties, chemical and mechanical treatment, and structure. Lectures; reading; laboratory. II; (2).

Assistant Professor MCFARLAND

**80. The Elements of Glass Blowing.**—Laboratory. II; (1). Mr. ANDERS

**86. The Chemistry of the Higher Order Compounds.**—Complex compounds from the standpoint of the coordination-valence theory as developed by Werner. I; (2).

Assistant Professor SMITH

*Prerequisite:* Chemistry 9a, 9b, 14a-14b.

**92a-92b, 93a-93b. Journal Meeting.**—(For juniors, seniors, and graduates.) I, II; (1). Assistant Professors MCFARLAND and DERICK in charge

**95. History of Chemistry.**—Lectures; assigned reading. Pattison Muir's *History of Chemical Theories and Laws*. I; (2).

Assistant Professor SMITH

*Prerequisite:* Chemistry 14a-14b and 31.

### Courses for Graduates

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department, must have had the equivalent of 15 university credits in chemistry, and the work covered must have included satisfactory work in general chemistry and in qualitative and quantitative analysis. Such students are advised to take Chemistry 31, 33, (or 102, 102a), 5b, 5c, 14a-14b, 9a and 9b. Courses of a more special nature will not, as a rule, be accepted for graduate work unless preceded by one of the above courses.

For students in agriculture, Chemistry 5a and 13a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have had the equivalent of 30 university credits in chemistry, properly distributed.

For students in chemistry, 5a, 13a, 9, and 9c will not be accepted for graduate credit and 9a, 9b, 14a-14b, 31 and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 university credits in chemistry.

[102. **Advanced Physical Chemistry.**—This course and 102a cover a period of two years. The subject is treated from the standpoint of molecular kinetics and thermodynamics. The purpose is to develop power to handle a physico-chemical problem rather than merely to impart a knowledge of the phenomena and the principles involved. Lectures; seminar. Nernst's *Theoretische Chemie*, 7th edition. Twice a week; I, II; ( $\frac{3}{4}$  unit). Not given, 1915-16.

Professor WASHBURN

*Prerequisite:* Chemistry 1, 2; Physics 1a-1b, 3a-3b; Mathematics 8a or 7 and 9. An elementary knowledge of organic and physical chemistry is desirable.]

102a. **Advanced Physical Chemistry.**—Chemical equilibrium; the Phase Rule; certain portions of thermochemistry; photochemistry. (A continuation of 102, with which it alternates.) Nernst's *Theoretische Chemie*. Twice a week; I, II; ( $\frac{3}{4}$  unit).

Professor WASHBURN

*Prerequisite:* The same as course 102.

102b. **Advanced Electrochemistry.**—Solution; thermodynamics; electro-motive force; transformation of chemical and electrical energy. Twice a week; II; ( $\frac{3}{4}$  unit).

Dr. MACINNES

*Prerequisite:* Chemistry 102; Mathematics 8a or 7 and 9.

102c. **Advanced Physical and Electrochemistry.**—Special problems. Laboratory. Twice a week; I; ( $\frac{1}{2}$  to 1 unit).

Professor WASHBURN

*Prerequisite:* Chemistry, 31, 33; registration in Chemistry 102b, or completion of Chemistry 102, 102a, or 102b; Mathematics 8a or 7 and 9.

102d. **Electrochemistry.**—(For students in electrical engineering.) Once a week; I; ( $\frac{1}{2}$  unit).

Dr. MACINNES

102e. **Special Topics in Physical Chemistry.**—Subject for 1915-16: Radiochemistry. Soddy, *The Chemistry of the Radio Elements*. Once a week; I; ( $\frac{1}{2}$  unit).

Professor WASHBURN

*Prerequisite:* Chemistry 102 or 102a.

103. **Advanced Inorganic Chemistry.**—Descriptive inorganic chemistry; the rarer elements; the periodic system. Lectures, with or without laboratory. Two to five times a week; I, II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units).

Professor BALKE

103a. **Advanced Analytical Chemistry.**—Special topics. Lectures, with or without laboratory. Two to five times a week; II; ( $\frac{1}{2}$  to  $1\frac{1}{4}$  units).

Assistant Professor SMITH

*Prerequisite:* Chemistry 5b, 9a, 9b, 14a-14b, 31, 33.

103b. **Special Topics in Inorganic Chemistry.**—Subject for 1915-16: The chemistry of the higher order compounds. Werner, *Neuere Anschauungen auf dem Gebiete der Anorganischen Chemie*; assigned reading from later publications. Lectures; seminar. Twice a week; I; ( $\frac{3}{4}$  unit).

Assistant Professor SMITH

*Prerequisite:* Chemistry 9a, 9b, 14a-14b.

**103c. Special Topics in Inorganic Chemistry.**—Seminar. Subject for 1915-16: The determination of atomic weights. *Twice a week; II; (3/4 unit).* Professor BALKE

**103d. Advanced Qualitative Analysis.**—Methods of separation; qualitative reagents; reactions of some of the less common elements. (Designed especially for those intending to teach qualitative chemistry.) Lectures, with or without laboratory. *One to three times a week; I; (1/2 to 1 unit).*

Assistant Professor WEBER

[**104. Advanced Organic Chemistry.**—Seminar. The open chain compounds of carbon, hydrogen, and oxygen atoms from the standpoint of the atomic linking theory; tautomerism, stereochemistry; the carbohydrates. Lectures; discussions; laboratory. *Three times a week; I, II; (3/4 unit).* Not given, 1915-16.] Assistant Professor DERICK]

**104a. Advanced Organic Chemistry.**—(Continuation of 104, with which it alternates). The closed chain compounds of the carbon, hydrogen, and oxygen atoms and of the organic compounds of nitrogen; the ureids, alkaloids. Lectures; discussion; laboratory. *Three times a week; I, II; (3/4 unit).*

Assistant Professor DERICK

**104b. Advanced Quantitative Organic Analysis.**—Proteins, alkaloids, glucosides, volatile oils, and other constituents of animal and vegetable tissues; plant analysis; toxicological analysis; chemical and physical methods of organic analysis. Lectures; seminar. (May be accompanied by laboratory work on a selected group of compounds.) *Twice a week; I, II; (3/4 unit).* Dr. BEAL

**104c. Special Topics in Organic Chemistry.**—Seminar. A. von Weinberg's *Kinetische Stereo-Chemie der Kohlenstoff Wesbindungen*. *Once a week; II; (1/4 unit).* Assistant Professor DERICK

**105. Advanced Physiological Chemistry.**—The structure and distribution of the proteins; intermediary metabolism and the glands of internal secretion. Lectures; demonstrations; assigned reading; discussions. *Twice a week; II; (3/4 unit).* Dr. LEWIS

**105a. Advanced Physiological Chemistry.**—Difficult biochemical preparations; the use of the newer analytical methods. Laboratory. *One to five times a week; I or II; (3/4 unit).* Dr. LEWIS

**105b-105c.—Advanced Physiological Chemistry.**—Seminar. The recent development of physiological chemistry. *Two hours a week, I, II; (3/4 unit).* Dr. LEWIS

**106. Animal Chemistry (Animal Nutrition).**—The recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products; the flesh, fat, milk, and wool of the more common domesticated animals. Lectures; conferences; assigned reading; laboratory. *Five times a week; I, II; (1 to 1 1/2 units).* Professor GRINDLEY

*Prerequisite:* Two years' work in chemistry.

**107. Special Problems in Technology of Fuels.**—*I; (1 unit).*

Professor PARR

*Prerequisite:* Chemistry 77.

**107a. Gas Manufacture.**—Carbonization processes, ovens, and by-products. *Once a week; II; (1/2 unit).* Professor PARR

108. Advanced Metallography.—Constitution and microstructure of metals and alloys; the relations between their properties, chemical and mechanical treatment, and structure. Assigned reading; laboratory. Twice a week; I; (3/4 unit). Assistant Professor MCFARLAND

*Prerequisite:* Chemistry 7 and 78 or equivalent.

109. Advanced Industrial Chemistry.—Seminars. Some of the more important chemical industries; the development and chemical control of processes. Twice a week; I, II; (3/4 unit). Assistant Professor McFARLAND

*Prerequisite:* Chemistry 6, 9, 14a-14b, 21 or equivalent.

110. Water Supplies.—The sources of contamination of water supplies and the purification of water for potable or technical use. *Three to five times a week; I, II; ( $\frac{1}{2}$  to  $\frac{1}{4}$  units).* Professor BARTOW

**111. Research.**—A thesis is usually required of students taking the master's degree and is always required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry 11.) Work may be taken in the following subjects:

**PHYSICAL AND ELECTROCHEMISTRY** Professor WASHBURN, Dr. MACINNES  
**INORGANIC CHEMISTRY**

**ANALYTICAL CHEMISTRY** Professor BALKE, Assistant Professors SMITH, WEBER  
**ANALYTICAL CHEMISTRY** Assistant Professor SMITH

ANALYTICAL CHEMISTRY  
FOOD CHEMISTRY

FOOD CHEMISTRY ORGANIC CHEMISTRY DR. NOYES DR. DERICKE

**ORGANIC CHEMISTRY** . . . **PROFESSOR NOTES, Assistant PROFESSOR DRICK BARTOW**

WATER CHEMISTRY | ANIMAL CHEMISTRY (Animal Nutrition) | PROFESSOR GRINBLEY | PROFESSOR GRINBLEY

**PHYSIOLOGICAL CHEMISTRY** (Animal Nutrition)  
**Dr. F. LEWIS**

INDUSTRIAL CHEMISTRY Professor PARR, Assistant Professor McEARL AND DR. LEWIS

### **Summer Session Courses**

NOTE: All the courses in chemistry offered in the Summer Session are equivalent to the courses of the same numbers given during the academic year.

S 1. Elementary Chemistry.—For description see Chemistry 1. (5).  
Professor BALKE, Dr. HOPKINS.

**S 1a and S 1b. Inorganic Chemistry.**—For description see Chemistry 1a and Chemistry 1b. (4). Professor BAIKE, Dr. HOPKINS

**S 2. Descriptive Inorganic Chemistry.**—(A continuation of S 1.) The metallic elements, their compounds, and properties. Illustrated lectures; recitations. (2) Professor BURKE, DR. HOPKINS

*Prerequisite:* Chemistry 1

**S 3. Qualitative Analysis.—Lectures; recitations; laboratory. (3).**  
Assistant Professor W. F. W.

*Prerequisite:* Chemistry 1

\*S 5a.—Elementary Quantitative Analysis.—For description see Chemistry 5a. (5). Dr. BEAL, Dr. SEARS.

*Prerequisite:* Chemistry 1 and 3

\*S 5c. Food Analysis.—For description see Chemistry 5c. (5).  
Dr. BEAL Dr. SEARS

\*S 9a. **Organic Synthesis.**—For description see Chemistry 9a. (2).  
Assistant Professor DERICK, Mr. KAMM

*Prerequisite:* Registration in Chemistry S 14.

\*S 9b. **Organic Synthesis.**—(Continuation of S 9a.) (2).  
Assistant Professor DERICK, Mr. KAMM

*Prerequisite:* Chemistry S 9a and registration in Chemistry S 14b.

\*S 14a. **Organic Chemistry.**—For description see Chemistry 14a. This course may be substituted for Chemistry 9 of the academic year. (3).  
Assistant Professor DERICK, Mr. KAMM

*Prerequisite:* Chemistry 2 and 3.

\*S 14b. **Organic Chemistry.**—For description see Chemistry 14b. (3).  
Assistant Professor DERICK

*Prerequisite:* Chemistry S 14a or equivalent.

\*S 11 and \*S 111. **Research.**—For description see Chemistry 11a-11b, and Chemistry 111.

Professor BALKE, Assistant Professor DERICK, Assistant Professor WEBER, Dr. BEAL, Mr. MACARTHUR

\*S 13a. **Agricultural Analysis.**—For description see Chemistry 13a. (5).  
Dr. BEAL, Dr. SEARS

\*S 15. **Physiological Chemistry.**—For description see Chemistry 15. (5 or 7)†.  
Mr. MACARTHUR

S 17. **Teachers' Course.**—Methods in teaching *elementary chemistry*; a review of fundamental principles. (1).  
Professor BALKE

*Prerequisite:* One year's work in chemistry.

## CIVIL ENGINEERING

FREDERICK HAYNES NEWELL, B.S., D.Eng., *Professor*

IRA OSBORN BAKER, B.S., C.E., D.Eng., *Professor*

CHARLES ALTON ELLIS, A.B., *Professor, Structural Engineering*

ALLEN BOYER McDANIEL, B.S., *Assistant Professor*

JAMES ELMO SMITH, B.S., C.E., *Assistant Professor*

WILBUR M WILSON, M.M.E., C.E., *Assistant Professor, Structural Engineering*

CARROLL CARSON WILEY, B.S., C.E., *Associate*

NEAL BRYANT GARVER, B.S., C.E., *Associate*

GEORGE WELLINGTON PICKELS, Jr., B.C.E., C.E., *Instructor*

WILLIAM HORACE RAYNER, B.S., C.E., *Instructor*

RAYMOND EARL DAVIS, B.S., C.E., *Instructor*

CLARENCE STANLEY SALE, B.S., *Instructor*

BENJAMIN LESTER BOWLING, *Assistant in Cement Laboratory*

27. **Plane Surveying.**—Compass, transit, and level; computation of areas and partitioning of land; United States land survey methods, re-establishment of corners and boundaries, and interpretation of deeds; farm and city sur-

†In registering for a course with variable credit hours, a student must put down on his study list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

veying. Problems with tape, compass, transit, and level. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. I. Davis's *Manual of Surveying*. I; (3).  
Mr. RAYNER, Mr. DAVIS

*Prerequisite:* General Engineering Drawing 1, 2; Mathematics 4.

**28. Higher Surveying.**—Transit and plane-table in topographic surveys; methods; determination of latitude, longitude, and azimuth by stellar and solar observations; topographic drawing; a complete topographic survey based on a system of triangulation. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. II. Davis's *Manual of Surveying*. II; (3).

Mr. PICKELS, Mr. RAYNER, Mr. DAVIS

*Prerequisite:* Civil Engineering 27; Physics 1a, 3a, and registration in Physics 1b, 3b.

**31. Surveying.**—Compass, level, transit, and plane-table; determination of distances by pacing, and with chain and tape, and of areas with compass and transit; profile leveling; problems with plane-table. (For students in landscape architecture.) Raymond's *Plane Surveying*. I; (3).  
Mr. PICKELS

*Prerequisite:* Mathematics 4; Architecture 31, 32.

**32. Topographic Surveying.**—The stadia; conventional topographical signs; contour construction; grading and drainage problems; preparation of the plane-table. A large scale topographic map of a portion of the campus. (For students in landscape architecture.) Raymond's *Plane Surveying*. II; (3).  
Mr. PICKELS

*Prerequisite:* Civil Engineering 31.

**33. Surveying.**—Compass, level, transit, and plane-table; determination of distances by pacing, and with chain and tape; determination of areas with compass and transit; differential leveling; a survey for a large scale map with plane-table. United States land survey methods; problems in strike and dip. (For students in geology.) Breed and Hosmer's *Principles and Practice of Surveying*, Vol. I; Davis's *Manual of Surveying*. I; (3).  
Mr. RAYNER

*Prerequisite:* Mathematics 4; General Engineering Drawing 1.

**34. Topographic Surveying.**—Stadia measurements; azimuth determinations from solar and stellar observations; lettering, conventional topographic signs; contour construction; its relation to geologic formations; survey for small scale map with plane-table, barometer, and pacing methods. (For students in geology.) Breed and Hosmer's *Principles and Practice of Surveying*, Vol. II; Davis's *Manual of Surveying*. II; (3).  
Mr. RAYNER

*Prerequisite:* Civil Engineering 33, and junior standing in geology.

**51. Railroad Surveying.**—Economic location, construction, and maintenance of railways. Curves, turnouts, and earthwork. Preliminary and location surveys of a line of sufficient length to secure familiarity with the methods in actual practise. Preparation of a complete set of maps, profiles, and estimates. Pickels and Wiley's *Railroad Surveying*. I; (5).

Assistant Professor SMITH, Mr. WILEY, Mr. PICKELS

*Prerequisite:* Civil Engineering 27, 28.

**52. Roads and Pavements.**—Construction and maintenance of earth, gravel, macadam, concrete, and bituminous roads; street pavements, and their

adaptation to country roads; road-building machinery; effect of travel on road surfaces; dust prevention and street cleaning. Baker's *Roads and Pavements*. II; (3). Assistant Professor SMITH, Mr. WILEY

*Prerequisite:* Mathematics 4; General Engineering Drawing 1, 2; Civil Engineering 27, 28, 51.

53. **Railroad Surveying.**—First eleven weeks of Civil Engineering 51, for municipal and sanitary engineering juniors. I; (3). Mr. PICKELS

*Prerequisite:* Civil Engineering 27, 28.

55. **Roads and Pavements.**—(For students in landscape gardening.) Baker's *Roads and Pavements*. I; (2). Mr. GARVER

58. **Graphic Statics.**—Determination of stresses in roof and bridge trusses and in three-hinged arches. (For mining engineers.) Malcolm's *Elements of Graphic Statics*. II; (2). Assistant Professor SMITH

*Prerequisite:* Theoretical and Applied Mechanics 20, 25.

60. **Structural Stresses.**—The determination of stresses in roofs, bridges, and steel-skeleton buildings, by algebraic and graphic processes. Johnson, Bryan, and Turneaure's *Modern Framed Structures*, Part I. II; (4).

Professor ELLIS, Assistant Professor WILSON

*Prerequisite:* Mathematics 2, 4, 6; Theoretical and Applied Mechanics 20, 21, 29; General Engineering Drawing 1, 2.

62. **Structural Details.**—Design of details for roofs, bridges, and steel-frame buildings; detail drawings and shop bills. II; (2). Cargenie's *Pocket Companion*, last edition. Mr. GARVER

*Prerequisite:* Registration in Civil Engineering 60.

70. **Seminar.**—Preparation of one major and two minor papers upon assigned topics; discussion. II; (1). Professor BAKER, Mr. DAVIS

*Prerequisite:* Junior standing in civil engineering.

76. **Surveying.**—United States public land surveys; principles of re-establishing corners; use of transit in finding distances, areas, and in laying out buildings; use of the level in finding profiles and contours. Raymond's *Plane Surveying*. II; (2). Mr. PICKELS

*Prerequisite:* Mathematics 4; General Engineering Drawing 1, 2; Physics 1a-1b, 3a-3b.

77. **Masonry Construction.**—Baker's *Masonry Construction*. I; (4).

Professor BAKER, Assistant Professor McDANIEL

*Prerequisite:* Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering 60.

79. **Cement Laboratory.**—Standard tests for hydraulic cement. I; (1).

Professor BAKER, Assistant Professor McDANIEL, Mr. BOWLING

*Prerequisite:* Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering 60; registration in Civil Engineering 77.

80. **Contracts and Specifications.**—The law of contracts; general and technical clauses used in engineering specifications. Johnson's *Engineering Contracts and Specifications*. II. (2).

Professor BAKER, Assistant Professor McDANIEL

*Prerequisite:* Senior standing in engineering.

**81. Theory of Reinforced Concrete.**—Reinforced concrete beams, columns, and slabs. Hool's *Reinforced Concrete Construction. I*; (2).

Professor ELLIS, Assistant Professor McDANIEL

*Prerequisite:* Registration in Civil Engineering 77, 79, 83, and 85, or 91.

**82. Reinforced Concrete Design.**—Plain and reinforced concrete arches, culverts, dams, bridges, and retaining walls. Hool's *Reinforced Concrete Construction*, Vol. II. *II*; (4). Assistant Professor McDANIEL

*Prerequisite:* Civil Engineering 81.

**83. Steel Bridge Design.**—Determination of stresses and sections of a plate girder and a truss span; stress sheet, general design drawings, and estimate of weights. (For railway civil engineers, and civil engineers taking the general civil engineering option.) Kirkham's *Structural Engineering. I*; (3).

Assistant Professor WILSON

*Prerequisite:* Civil Engineering 60, 62.

**85. Steel Bridge Design.**—(For civil engineers taking the structural engineering option.) Kirkham's *Structural Engineering. I*; (5).

Assistant Professor WILSON

*Prerequisite:* Civil Engineering 60, 62.

**87. Advanced Bridge Analysis.**—Continuous, draw, cantilever, suspension, and metal-arch bridges. Johnson, Bryan and Turneaure's *Modern Framed Structures. Part II. I*; (2). Professor ELLIS

*Prerequisite:* Civil Engineering 60, 62; and registration in Civil Engineering 83, 85, or 91.

**88. Steel Building Design.**—Stresses and sections of the steel frames of mill and office buildings; footings and grillages; design drawings and estimates of weights. *II*; (3). Assistant Professor WILSON

*Prerequisite:* Civil Engineering 60, 62.

**89-90. Hydro-Economics.**—The occurrence of water in nature; its conservation, regulation, and use for power and in industries; irrigation, drainage, transportation, domestic supply; the legal title to the use of water. *I, II*; (2). Professor NEWELL

*Prerequisite:* Senior standing.

**91. Highway Bridge Design.**—Types of highway bridges; determination of location, size, and type. Steel bridges, beam, low-truss, and through-truss; methods and cost of construction. *I*; (4). Mr. GARVER

*Prerequisite:* Civil Engineering 60, 62.

**92. Concrete Bridges and Culverts.**—Reinforced-concrete slab, girder, and arch bridges; falsework and forms; estimates of quantities; costs. *II*; (2). Mr. GARVER

*Prerequisite:* Civil Engineering 77, 79, 81, 91.

**93. Road Construction.**—Merits of different types of roads and pavements; design; plans, specifications, and estimates. *I*; (3). Mr. WILEY

*Prerequisite:* Civil Engineering 52; Theoretical and Applied Mechanics 21, 29.

**94. Highway Administration.**—Road construction and maintenance in Europe and America; taxation and methods of financing road work; the relation of highway improvement to social and economic welfare. *II*; (3).

Mr. WILEY

*Prerequisite:* Senior standing in civil engineering

**96. Road Laboratory.**—Examination and testing of bituminous and non-bituminous road materials. *II*; (2). Mr. WILEY, Mr. BOWLING

*Prerequisite:* Civil Engineering 52, 77, 79; registration in Chemistry 73.

**97-98. Thesis.**—A problem in investigation or design, subject to the approval of the head of the department. Only students with high standing are permitted to take a thesis. *I*; (1) : *II*; (2).

*Prerequisite:* Senior standing in civil engineering

#### Courses for Graduates

**101. Irrigation and Drainage.**—The survey, examination, construction, maintenance, and operation of works for irrigation and drainage of agricultural lands; water rights. *Twice a week; I, II; (½ unit)*. Professor NEWELL

**106. Reinforced Concrete Design.**—Elastic theory and the design of reinforced concrete structures; specifications for design; concrete forms; typical structures; methods and costs of construction. *Twice a week; I, II; (1 unit or more)*. Assistant Professor McDANIEL

**107. Bridge Engineering.**—Deflections; the statically indeterminate frame; swing bridges and arches; special graphic methods; suspension bridges; secondary stresses; impact. *Two or three times a week; I, II; (1 unit or more)*. Professor ELLIS

**124. Steel Building Construction.**—Steel framing of fireproof office buildings, hotels, and industrial buildings; wind bracing; eccentrically loaded columns; analysis of special details; erection methods and costs. *Twice a week; I, II; (1 unit or more)*. Assistant Professor WILSON

#### THE CLASSICS

HERBERT JEWETT BARTON, A.M., *Professor, Chairman*

CHARLES MELVILLE MOSS, Ph.D., *Professor*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Professor*

ARTHUR STANLEY PEASE, Ph.D., *Professor*

HOWARD VERNON CANTER, Ph.D., *Assistant Professor*

RODNEY POTTER ROBINSON, A.M., *Assistant*

#### GREEK

**Major:** 20 hours, excluding Greek 1a-1b, 17, 18, and 19.

**Minors:** 20 hours chosen from foreign languages (Latin being especially recommended), English literature, history, and philosophy.

#### LATIN

**Major:** 20 hours, excluding Latin 1a, 6a, and 12.

**Minors:** 20 hours chosen from foreign languages (Greek being especially recommended), English literature, history, and philosophy.

## CLASSICS

**Major:** 20 hours in Greek and Latin, excluding Greek 1a-1b, 16, 17, 18, 19, and 20, and Latin 1a, 6a, 12, 13, and 19. At least six hours shall be carried in the secondary language and the remaining hours in the primary language.

**Minors:** 20 hours chosen from foreign languages, English literature, history, and philosophy.

## GREEK

## Courses for Undergraduates

The courses in translation naturally follow each other in the following sequence: 1a-1b, 3, 7 (5), 6 (8). Courses 1a-1b, 3, and 4 are intended for students who cannot present Greek for entrance to the University, but who desire to commence the study of the language. Course 2a-2b may be taken after course 1a-1b and course 14 after courses 5 or 7. Courses 16, 17, 18, and 19 are open to sophomores, juniors, and seniors; 20 is open to those who have completed one year in history or classics.

**1a-1b. Grammar and Reader.**—First semester: Attic forms; reading of simple prose. Second semester: Xenophon's *Anabasis*, Book 1. *I, II*; (4).

Professor OLDFATHER

**2a-2b. New Testament Greek.**—First semester: Reading of selections. Second semester: Lectures on canon and text. *I, II*; (2). Professor Moss

*Prerequisite:* Greek 1.

**3. Second Year Greek.**—Xenophon's *Anabasis*, Books II-IV; grammatical drill. *I*; (3). Professor PEASE

*Prerequisite:* Greek 1.

**4. Second Year Greek.**—Homer, six books of the *Iliad*. *II*; (3).

Professor Moss

*Prerequisite:* Greek 3.

**[5. Herodotus.]**—Selections, including portions of Books VI-VIII; Greek lyric poets. *II*; (3). Not given, 1915-16. Professor Moss

*Prerequisite:* Greek 4.]

**6. Thucydides.**—*The Sicilian Expedition*, Books VI-VII. *I*; (3).

Professor PEASE

*Prerequisite:* Greek 4.]

**7. Greek Drama.**—Three plays from the great dramatists. *II*; (3).

Professor PEASE

*Prerequisite:* Greek 4.

**14. Greek Prose Composition.**—*II*; (1).

Professor Moss

*Prerequisite:* Greek 5 and 6 or 7 and 8.

## Greek Life and Literature in English

(Courses 16-20 presuppose no knowledge of Greek and are open to all students except freshmen.)

**16. The Private and Public Life of the Greeks.**—Lectures illustrated by photographs and slides; prescribed readings; *I*; (1). Professor Moss

17. Greek Poetry in Translations.—I; (2). Professor Moss  
 18. Greek Prose in Translations.—I; (2). Professor Moss  
 19. Greek Drama in Translations.—II; (2). Professor Moss  
 20. Greek History.—(This course is described by the department of history as History 5.) I; (3). Professor OLDFATHER

*Prerequisite:* One course in history or the classics. Not open to freshmen.

#### Courses for Graduates

- [104. Homer and the Homeric Question.—Lectures and reading in alternate hours. I, II; (1 unit) Not given, 1915-16. Professor OLDFATHER]

105. Plato and Aristotle.—Selections from the political and ethical writings. I, II; (1 unit). Professor OLDFATHER

107. Greek Oratory.—One or more speeches of each of several orators; lectures; reports. I, II; (1 unit). Professor Moss

110. Bibliography and Criticism.—Once a week; I, II; (1/4 unit).

Professor OLDFATHER, Professor PEASE, and others

#### LATIN

- 1a-1b. Ovid and Virgil.—First semester: Selections from the *Amores*, *Heroides*, and *Metamorphoses*. Second semester: Selections from the *Aeneid*. I, II; (4). Assistant Professor CANTER, Mr. ROBINSON

*Prerequisite:* Three entrance units in Latin.

- 2a-2b. Livy, Plautus, and Terence.—First semester: Selections from Livy, the story of Hannibal. Second semester: the *Rudens* of Plautus and the *Phormio* of Terence. I, II; (4). Professor BARTON

*Prerequisite:* Four entrance units in Latin.

3. Sallust and Cicero.—Selections from the *Jugurthine War*; *De Senectute*. I; (3). Assistant Professor CANTER

*Prerequisite:* Latin 2a-2b.

4. Horace and Catullus.—Selections. II; (3). Professor BARTON

*Prerequisite:* Latin 2a-2b.

- 5a-5b. Latin Composition.—Grammatical drill and practise in the simpler forms of expression. I, II; (1). Assistant Professor CANTER

*Prerequisite:* Latin 1a-1b or its equivalent.

6. Cicero.—Selections from the *Orations*. I; (4). Mr. ROBINSON

*Prerequisite:* Two entrance units in Latin.

#### Roman Life and Literature in English

(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen).

12. Virgil and Horace in English Translations.—The *Aeneid* and selections from Horace. I; (2). Professor BARTON

13. Roman Life.—The family, organization of society, education, marriage, amusements, with some attention to the monuments. Lectures illustrated by photographs and slides; assigned readings. II; (1). Professor BARTON

19. **Roman History.**—(This course is described by the department of history as History 6. Not open to freshmen.) *II; (3).* Professor CANTER

9. **Teachers' Course.**—The purpose and methods of preparatory Latin instruction; the teacher's preparation. *II; (2).* Professor BARTON

*Prerequisite:* 18 hours in Latin. A portion of this requirement may be waived in the case of those who have taught Latin.

10. **Latin Composition.**—The leading principles; imitation of assigned models. *I; (2).* Professor BARTON

*Prerequisite:* 12 hours in Latin, including Latin 5a-5b or its equivalent.

#### Courses for Advanced Undergraduates and Graduates

[7. **Horace and Juvenal.**—Selections from the *Satires* and *Epistles* of Horace; selected *Satires* of Juvenal. *I; (3).* Not given, 1915-16.] Professor PEASE

*Prerequisite:* 12 hours in Latin.]

8. **Tacitus.**—The *Annals*, Books I-VI. *I; (3).* Professor PEASE

*Prerequisite:* 12 hours in Latin.

[14. **Seneca.**—Selections from his letters and tragedies. *II; (3).* Not given, 1915-16.] Professor BARTON

*Prerequisite:* 15 hours in Latin.]

16. **Martial and Suetonius.**—Selections; lectures on literary history. *II; (3).* Professor OLDFATHER

*Prerequisite:* 18 hours in Latin.

22. **Late Latin.**—Rapid reading of selections from the Latin writers from Minucius Felix to Cassiodorus. *II; (2).* Professor PEASE

*Prerequisite:* This course is open to seniors and graduates who have had two years of college Latin or who otherwise satisfy the instructor of their ability to do the work required.

#### Courses for Graduates

Students desiring to take graduate work in Latin should have had at least three years of college Latin in addition to the Latin presented to meet entrance requirements.

102. **Roman Oratory.**—*Twice a week. II; (½ unit).*

Assistant Professor CANTER

103. **Cicero.**—*De Natura Deorum* and *De Divinatione*. *Twice a week; I; (½ unit).* Professor PEASE

104. **Latin Paleography.**—*Twice a week. I; (½ unit).* Professor PEASE

106. **Terence.**—*Twice a week. I; (½ unit).* Professor PEASE

107. **Latin Epigraphy.**—*Twice a week. II; (½ unit).* Professor PEASE

108. **Tacitus.**—*The Histories. Twice a week. I; (½ unit).* Professor BARTON

109. **Virgil.**—*Twice a week. II; (½ unit).* Professor PEASE

110a-110b. **Bibliography and Criticism.**—*Once a week. I, II; (¾ unit).* Professor OLDFATHER and others

[112. Roman Historiography.—*Twice a week. II; (1 unit).* Not given, 1915-16. Assistant Professor CANTER]

[113. Plautus.—*Twice a week. I; (1 unit).* Not given, 1915-16. Professor OLDFATHER]

114. Caesar.—*Twice a week. II; (½ unit).* Professor OLDFATHER

#### Summer Session Courses

S 1. Terence.—Reading of three plays; discussions of the language and verse of comedy. (2½). Assistant Professor CANTER

*Prerequisite:* Three or four years of high school Latin.

S 2. The Private Life of the Romans.—The house, marriage, dress, education, and amusements of the Romans. Illustrated lectures; assigned readings. (1). Assistant Professor CANTER

S 3. Teachers' Course.—For description see Latin 9. (1½). Assistant Professor CANTER

S 4. Greek History and Private Life.—Illustrated lectures; assigned readings. (2). Associate Professor OLDFATHER

#### Courses for Advanced Undergraduates and Graduates

\*S 16. Suetonius.—The biographies of Julius Caesar and Nero. Lectures; assigned readings. (2). Associate Professor OLDFATHER

*Prerequisite:* Three years of college Latin or the equivalent.

\*S 114. Caesar.—The historical works, especially the *Bellum Gallicum*, in their literary and historical setting. (½ or 1 unit). Associate Professor OLDFATHER

#### COMMERCIAL LAW

(See BUSINESS ORGANIZATION AND OPERATION.)

#### COMPARATIVE LITERATURE

JOSEPH EUGENE GILLET, Ph.D., Associate in Comparative Literature and German

1. Tragedy.—Theory and practise from classical times to the present day. Lectures; readings; reports. I; (3). Dr. GILLET

*Prerequisite:* Two years of college work, or the permission of the instructor. Foreign language is not required.

2. Comedy.—Theory and practise from classical times to the present day. Lectures; readings; reports. II; (3). Dr. GILLET

*Prerequisite:* Two years of college work, or the permission of the instructor. Foreign language is not required.

#### COMPARATIVE PHILOLOGY

LEONARD BLOOMFIELD, Ph.D., Assistant Professor

#### For Graduates and Advanced Undergraduates

1. Introduction to the Study of Language.—Phonetics; the development of forms of speech; dialects and the spread of languages; the study and teaching of language. I; (3). Assistant Professor BLOOMFIELD

*Prerequisite:* The consent of the instructor.

**2. Comparative Philology of the Indo-European Languages.**—Greek, Latin, and the Germanic languages, including English. *II*; (2).

Assistant Professor BLOOMFIELD

*Prerequisite:* The consent of the instructor.

**3-4. Elementary Sanskrit.**—Reading and grammar. *I, II*; (3).

Assistant Professor BLOOMFIELD

*Prerequisite:* The consent of the instructor.

## DAIRY HUSBANDRY

HARRY ALEXIS HARDING, Ph.D., *Professor, Dairy Bacteriology*

\*WILBER JOHN FRASER, M.S., *Professor, Dairy Farming*

MARTIN JOHN PRUCHA, Ph.D., *Assistant Professor, Dairy Bacteriology*

NELSON WILLIAM HEPBURN, M.S., *Assistant Professor, Dairy Manufactures*

LEROY LANG, M.S., *Associate, Dairy Manufactures*

WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*

RAY STILLMAN HULCE, M.S., *Associate, Milk Production*

HARRISON AUGUST RUEHE, B.S., *Associate, Dairy Manufactures*

EDWARD FREDERICK KOHMANN, Ph.D., *Associate, Dairy Chemistry*

WILLIAM WODIN YAPP, M.S., *Instructor, Dairy Husbandry*

PAUL WILLIAM ALLEN, M.S., *Assistant, Dairy Bacteriology*

WILLIAM BARBOUR NEVENS, B.S., *Assistant, Dairy Husbandry*

LEIGHTON J TRUE, B.S., *Assistant, Dairy Manufactures*

HAROLD GOSSE, B.S., *Assistant, Dairy Husbandry*

### Courses for Undergraduates

**1. Milk Testing.**—The Babcock test; official testing; inspectors' methods; tests for purity and adulteration; lactometer; acid tests; tests for preservatives; butter analysis; moisture, salt, and fat tests. Lectures; assigned readings; laboratory practise. (Alternates with Dairy Husbandry 16 in first semester if desired.) *I*; (3). Assistant Professor HEPBURN, Dr. KOHMANN

**2. Dairy Cattle.**—The relation of dairy type to milk and butter-fat production; origin and history of breeds; characteristics, type, and adaptability to markets and climatic conditions; prominent families and individuals; herd improvement; selection of animals on performance, breeding, and physical conformation; grading up by use of superior sires. Lectures; recitations; judging. *II*; (4). Mr. CRANDALL

*Prerequisite:* Dairy Husbandry 3, Animal Husbandry 5.

**3. Elements of Dairy Husbandry.**—The dairy herd; dairy sanitation; milk testing; milk; milk products. Lectures; demonstrations. (Required of all freshmen in the general curriculum in agriculture.) *I or II*; (1).

Mr. HULCE and members of the department

**4. Ice-Cream Making.**—Freezers; methods of freezing; mixing and freezing ice cream, sherbets, and other frozen products; plans for factories; flavoring extracts, fillers, and binders; standards; condensed milk; its relation to the ice-cream industry; use of refrigerating machinery. (This course includes one inspection trip, costing from \$10 to \$15.) *I or II*; (3). Mr. RUEHE

*Prerequisite:* Dairy Husbandry 1.

\*On leave of absence.

**7. Creamery Butter-making and Factory Management.**—Types of creameries; raw product received; grading; pasteurization; use of commercial starters; ripening; churning; salting; working. Butter composition; uniformity and methods of control; scoring. Accounting and business methods; cooperative and centralized management; sale of by-products; refrigerating; location and creamery plans; disposal of sewage. Lectures; assigned readings; laboratory practise. (This course includes one inspection trip, costing from \$10 to \$15.) *II*; (5).

Assistant Professor HEPBURN, Mr. LANG

*Prerequisite:* Dairy Husbandry 1.

**8. City Milk Supply.**—Production, transportation, and delivery. *II*; (2).

Professor HARDING, Mr. LANG

*Prerequisite:* Dairy Husbandry 1.

**11. Dairy Bacteriology.**—The bacteria of milk and its products; methods of introduction, effect, and control. Lectures. *I*; (2). Professor HARDING

*Prerequisite:* Bacteriology 5.

**12a-12b. Dairy Bacteriology.**—The bacteria of milk and its products. Laboratory. *I, II*; (4).

Professor HARDING, Mr. ALLEN

*Prerequisite:* Bacteriology 5.

**16. Dairy Cattle Feeding and Management.**—Compounding rations for dairy cows; station feeding tests; effects of feeds on milk products; calf raising, feeding, and general care; barn and silo arrangement. Opportunity is given to study the feeding of the University dairy herds, and the types of silos in use. (Alternates with Section A, Dairy Husbandry 1, if desired.) *I*; (3). Mr. HULCE

*Prerequisite:* Animal Husbandry 6.

**17. Advanced Study of Dairy Breeds.**—The origin and history of dairy breeds; characteristics and producing abilities; prominent families and individuals; pedigree work; performance records; advanced registry; problems of the breeder of pure-bred dairy cattle. Lectures; assigned readings; seminar work. (The student may specialize in the breed in which he is interested.) *I*; (2).

Mr. CRANDALL

*Prerequisite:* Dairy Husbandry 2 and 16, and the permission of the instructor.

[**21. Systems of Dairy Farming.**—Relation of the cow and the herd to profits; how to establish and perpetuate a dairy herd; economy of crops and rations; systems of cropping; organization; location and arrangement of buildings and lots; accounts, records, and inventories; markets; care and disposal of milk. *II*; (5). Not given, 1915-16.]

Professor FRASER

*Prerequisite:* Dairy Husbandry 2 and 16.]

**22. Farm Dairying and Cheese Making.**—Ripening and setting milk; the curd; pressing and curing cheese; soft cheese; practise in making the common varieties. Butter making under farm conditions; marketing; handling of cream; the hand separator; various makes of machines; plans for farm dairy houses. *I*; (4).

Assistant Professor HEPBURN, Mr. LANG

*Prerequisite:* Dairy Husbandry 1.

### Courses for Graduates

- [101. **Economic Milk Production.**—Differences in the efficiency of dairy cows, their cause and effect, and their relation to successful dairy farming. *Twice a week. I, II; (1 unit).* Not given, 1915-16. Professor FRASER]
- [102. **Research.**—The investigations in progress in the dairy herds of the State. *I, II; (1 unit).* Not given, 1915-16. Professor FRASER]
- [103. **Research.**—Dairy feeding problems. *I, II; (1 unit).* Not given, 1915-16. Professor FRASER]
104. **Dairy Bacteriology.**—Assigned topics. *I, II; (2 units).*  
Professor HARDING, Assistant Professor PRUCHA

### DRAWING, GENERAL ENGINEERING

HARRY WILLARD MILLER, M.E., *Assistant Professor*

ROBERT KENT STEWARD, C.E., *Associate*

FRANCIS MARION PORTER, M.S., *Associate*

HARVEY HERBERT JORDAN, B.S., *Associate*

RUFUS CRANE, A.B., B.S., *Instructor*

CLARENCE ALLEN ATWELL, B.S., *Instructor*

MERTON FORD BANKS, B.S., *Assistant*

ROBERT EMMET MURPHY, *Assistant, half-time*

1. **Elements of Drafting.**—Lettering; isometric oblique and perspective drawing, orthographic projection; machine sketching; working drawings. Lettering: mechanical styles and the making of name plates and titles. Mechanical drawing: 12 plates from copy and 6 plates from models, with tracings of each. Dimensioned sketches from parts of standard machines; complete working drawings. Tracings duplicated in blue-print form. Time sketches of equipment. Miller's *Mechanical Drafting*. *I or II; (4).*

Assistant Professor MILLER and department staff

2. **Descriptive Geometry.**—The point, line, and plane; the properties of surfaces; intersections and developments (for architects, perspective instead of intersections and developments). Practical problems; recitations. Three drawing room plates, 2 hours each, 5 problems a plate, and 2 home plates, 5 problems each a week. Miller's *Descriptive Geometry*. *I or II; (4).*

Assistant Professor MILLER and department staff

*Prerequisite:* Solid geometry, college algebra, plane trigonometry.

21. **Advanced Descriptive Geometry.**—Review of course 2; the cylinder, cone, convolute and warped surface; intersections of these surfaces in pairs, and by planes; planes tangent; developable and approximately developable surfaces and doubly curved and complex surfaces of revolution; practical applications and methods. *II; (2).*

Mr. PORTER

*Prerequisite:* General Engineering Drawing 1, 2.

### Summer Session Courses

S 1. **Elements of Drafting.**—For description see General Engineering Drawing 1. (4).  
Mr. CRANE

S 2. **Descriptive Geometry.**—For description see General Engineering Drawing 2. (4).  
Mr. CRANE

## ECONOMICS

(See also BUSINESS ORGANIZATION AND OPERATION, and TRANSPORTATION.)

DAVID KINLEY, Ph.D., LL.D., *Professor*

MAURICE HENRY ROBINSON, Ph.D., *Professor*

ERNEST LUDLOW BOGART, Ph.D., *Professor*

NATHAN AUSTIN WESTON, Ph.D., *Assistant Professor*

SIMON LITMAN, Dr. Jur. Pub. et Rer. Cam., *Assistant Professor*

RALPH EMERSON HEILMAN, Ph.D., *Assistant Professor*

CHARLES MANFRED THOMPSON, Ph.D., *Associate*

JOHN GIFFIN THOMPSON, Ph.D., *Instructor*

CHARLES LESLIE STEWART, Ph.D., *Instructor*

WILLIAM HENRY DREESSEN, A.B., *Assistant*

EDWARD LAWRENCE MCKENNA, A.M., *Assistant*

GEORGE BURR McMILLEN, A.B., *Assistant*

**Major:** For students in the College of Liberal Arts and Sciences twenty hours, made up of Economics 1 and any other courses for which it is a prerequisite.

**Minor:** Twenty hours in any one or two of the following subjects: history, philosophy, political science, and sociology.

Economics 7, 22, and 26 are open to freshmen without previous requirement. Economics 27 is also open to freshmen, but requires credit in course 26 or an approved high-school course in commercial geography.

**Note:** Economics 1 and 3 are the fundamental courses in economics. They are prerequisites for most of the advanced courses and students expecting to do advanced work in economics should take them both in their sophomore year.

Economics 2, although open to all students who have had 30 hours of university work, is primarily for students in the Colleges of Agriculture and Engineering and in curriculums in household science, chemistry, chemical engineering, and other sciences. It may not be used as a prerequisite for advanced courses in economics except as indicated.

### Courses for Undergraduates

**1. Principles of Economics.**—(See note preceding the description of courses in economics above.) I; (5).

Assistant Professor HEILMAN, Dr. C. M. THOMPSON, Dr. J. G. THOMPSON, Dr. STEWART, and assistants

*Prerequisite:* Thirty hours of university work.

**2. Principles of Economics.**—(See note preceding the description of courses in economics above.) II; (3).

Professor ROBINSON, Assistant Professor HEILMAN, Dr. C. M. THOMPSON, Dr. J. G. THOMPSON

*Prerequisite:* Thirty hours of university work.

**3. Money and Banking.**—The history and theory of money, credit, and banking. (See note preceding the description of courses in economics.) II; (3).

Assistant Professor WESTON, Dr. STEWART, and assistants

*Prerequisite:* Economics 1.

**7. English Economic History.**—The industrial development of England; the manorial system; the gilds; the commercial policy and expansion of

the seventeenth and eighteenth centuries; the industrial and manufacturing growth of the nineteenth century. (Open to freshmen and sophomores only.) *I*; (3). Professor BOGART, Dr. C. M. THOMPSON

**16c. Agricultural Economics.**—The application of the principles of economics to the problems of agriculture. *II*; (3). Dr. J. G. THOMPSON

*Prerequisite:* Economics 1 or 2.

**22. The Economic History of the United States.**—The explorations and settlements that led to the colonization of this continent; the growth of industry, agriculture, commerce, transportation, and labor from the agricultural communities of the colonies to the industrial and commercial society of today. (Open to freshmen and sophomores only.) *II*; (3).

Professor BOGART, Dr. C. M. THOMPSON, Dr. STEWART, and assistants

**26. Economic Resources.**—Environment influences affecting commercial and industrial development; products and industries of different countries; the extent and distribution of the resources and the industrial and commercial activities of the United States. (Open to freshmen and sophomores only.) *I*; (3). Assistant Professor LITMAN, Dr. STEWART, and assistants

**27. Modern Industries.**—The raw materials of commerce; their geographical distribution and economic significance; the leading industries which utilize these materials; sources of power; investment of capital; employment of men and of machinery; the progressive stages of production; the distribution of finished commodities. (Open to freshmen and sophomores only.) *II*; (3).

Assistant Professor LITMAN and assistants

*Prerequisite:* Economics 26, or an approved high school course in commercial geography.

**32. Marketing Farm Produce.**—Prices of farm products; seasonal aspects; middlemen; speculation; transportation; terminal problems; regulative and protective legislation; crop statistics; public markets; direct sales; contrast between European and American marketing conditions. *II*; (2).

Dr. STEWART

*Prerequisite:* Economics 1 or 2.

**33. Economics of Insurance.**—The historical development and economic aspects of insurance. *I*; (2). Professor ROBINSON

*Prerequisite:* Economics 1 and 3.

**34. Property Insurance.**—Technical characteristics and economic effects of fire, marine, title, and credit insurance and corporative suretyship. *II*; (2). Professor ROBINSON

*Prerequisite:* Economics 1 and 3.

#### Courses for Undergraduates and Graduates

**4. Financial History of the United States.**—Federal finances to the end of the Civil War; monetary, banking, and fiscal events since the War, and their influence on business. *I*; (3). Assistant Professor WESTON

*Prerequisite:* Economics 1 and 3 and senior standing.

**5. Public Finance.**—Public expenditures; financial administration; taxation; public debts. *I*; (3). Professor BOGART

*Prerequisite:* Economics 1 and 3. Students who have had 6 hours in history and Political Science 1, and who present a statement from the department of political science showing that they are taking political science as a major, may be admitted without Economics 3.

**8. The Money Market.**—Money and credit; the functions of money broker and banker; the concentration of financial dealings at such centers as New York and London; international payments and the determination of rates of foreign exchange; the seasonal demands for money; causes of fluctuation in rates of discount; monetary panics and crises; investments; the financial aspects of dealings on the stock and produce exchanges. *II; (2).*

Assistant Professor WESTON

*Prerequisite:* Economics 1 and 3, Business Organization and Operation 1, senior standing. For the present year former Economics 6 will be accepted instead of Business Organization and Operation 1.

**9. Practical Banking.**—Banking practise in the United States. *I; (2).*  
Assistant Professor WESTON

*Prerequisite:* Economics 1 and 3, Business Organization and Operation 1, senior standing. For the present year former Economics 6 will be accepted instead of Business Organization and Operation 1.

**10. Corporation Management and Finance.**—The growth, causes, and forms of corporations; the promotion, financing, incorporation, and capitalization of corporate consolidations; their organization and securities; relation of stockholders and directors; analysis of reports; stock speculation; relations of industrial corporations to international competition; receiverships and reorganizations; social and political effects. *I; (3).* Professor ROBINSON

*Prerequisite:* Economics 1 and 3.

**11. Industrial Consolidation.**—Industrial consolidation; the growth of monopoly, monopoly prices and methods, the ability of trusts to effect prices, wages, interests, and profits; and the proposed plans for controlling trusts. *II; (3).* Professor ROBINSON

*Prerequisite:* Economics 10.

**12a-12b. Labor Problems.**—The relations of employer and employed; the development of trade unionism; policies of trade unions regarding wages, machinery, strikes, and collective bargaining; methods of industrial peace; unemployment and its remedies; labor legislation. *I, II; (3).*

Assistant Professor HEILMAN

*Prerequisite:* Open to graduates and seniors who have had economics 1 and 3. Students who have had 6 hours in history and Sociology 1 and who present a statement from the department of sociology showing that they are taking sociology as a major, may be admitted without Economics 3.

**13. Economic Development of Europe Since the Industrial Revolution.**—The economic history of France, Germany, and England since the industrial revolution. *II; (3).* Professor BOGART

*Prerequisite:* Sixty hours of university work, including Economics 1 and 3. Students who present a statement from the department of history showing that they are taking history as a major, may be admitted without Economics 3.

**14. Agricultural Cooperation.**—The organization, financing, and management of cooperative associations for the promotion of farming. (Open to junior and senior students of agriculture only.) *II*; (2). Dr. STEWART

*Prerequisite:* Economics 1 or 2.

**15. Rural Credit.**—The credit and banking needs of farmers and rural communities and means of supplying them. (Open to junior and senior students of agriculture only.) *I*; (2). Dr. STEWART

*Prerequisite:* Economics 1 or 2.

**17. Economic History of Agriculture.**—Land tenure and landed property; large, medium, and small farms or estates; economic conditions and results of extensive and intensive culture; agricultural credit and markets and labor; state of agricultural class; organization in agriculture, and its relation to other industries and to the state. *II*; (2). Dr. J. G. THOMPSON

*Prerequisite:* Economics 1 or 2.

**19. United States Industry, 1820-1860.**—Growth, distribution, and character of the population, with reference to the public domain and the westward movement; development of inland communication and transportation; foreign commerce and the carrying trade; distribution, extent, and methods of agriculture; manufacturing, labor and labor saving machinery; currency and banking; the tariff. *I*; (2). Dr. C. M. THOMPSON

*Prerequisite:* Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.

**20. United States Industry Since 1860.**—Improved methods of agriculture and the effect of exploiting new lands; the factory system; organized labor; evolution of "big business"; growth of urban centers; mining; economic effects of immigration; monetary questions; railroads and the regulation of interstate trade; foreign commerce; the tariff. *II*; (2). Dr. C. M. THOMPSON

*Prerequisite:* Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.

**21. Socialism and Economic Reform.**—Proposed reforms affecting the economic basis of society. The theories of socialism, communism, and syndicalism; recent modifications of the Marxian philosophy; the socialist movement in its political aspects; communistic experiments; social insurance. *II*; (2).

Assistant Professor HEILMAN

*Prerequisite:* Economics 1 and 3. Students who have had 6 hours in history and Sociology 1 and who present a statement from the department of sociology showing that they are taking sociology as a major may be admitted without Economics 3.

**28. Mechanism and Technics of Domestic Commerce.**—Internal trade; wholesale and retail trade organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and cooperative stores; commercial travelers; commercial competition; modern advertising; mercantile credit. *I*; (3). Assistant Professor LITMAN

*Prerequisite:* Economics 1 and 3.

**29. Foreign Commerce and Commercial Politics.**—Problems of international trade; changes in theories and in policies; economic systems (mercantil-

tile, free trade, protective); classes of customs tariffs; commercial treaties; history of tariff legislation in the United States. *II*; (3).

Assistant Professor LITMAN

*Prerequisite:* Economics 28.

[31. **Organization of Foreign Commerce.**—Exporting and importing; ocean transportation; line and charter traffic; institutions for furthering export trade; the consular service; entry of goods; the work of the custom house. *II*; (3). Not given, 1915-16.]

Assistant Professor LITMAN

*Prerequisite:* Economics 28.]

51. **Public Utilities.**—Relations of the public to public service corporations; methods of regulation; methods of control over accounting, capitalization, and service; valuation and rate making; comparisons of recent decisions of commissions; tendencies in regulation. *I*; (3). Assistant Professor HEILMAN

*Prerequisite:* Open to graduates and seniors who have had Economics 10.

#### Courses for Graduates

Students entering upon graduate work in economics must have had a thoro course in the principles of the science and should also have studied some special part of the field, such as public finance or money and banking.

[101. **Economic Theory.**—*Twice a week. I, II; (1 unit).* Not given, 1915-16.]

Professor KINLEY]

102. **Theory of Money, Credit, and Prices.**—*Twice a week. I, II; (1 unit).*

Professor KINLEY

104. **Foreign Commerce of the United States.**—The foreign commerce of the United States as shown in government publications. *Twice a week. II; (1 unit).*

Assistant Professor LITMAN

105. **Public Finance.**—The history and theory of public revenue and expenditure. *Twice a week. I, II; (1 unit).*

Professor BOGART

107. **The Corporation in Economic Evolution.**—*Twice a week. I, II; (1 unit).*

Professor ROBINSON

[109. **Theory of Industrial Consolidations.**—The nature of industrial consolidations; the conditions and causes responsible for their development and their effects upon the production and distribution of wealth. *Twice a week. I, II; (1 unit).* Not given, 1915-16.]

Professor ROBINSON]

118. **Seminar.**—*I, II.*

Professor KINLEY

120. **History of Economic Thought.**—*Twice a week. I, II; (1 unit).*

Dr. J. G. THOMPSON

[122. **Advanced Economic History of the United States.**—*Twice a week. I, II; (1 unit).* Not given, 1915-16.]

Professor BOGART]

#### Summer Session Courses

S 2. **Principles of Economics.**—(2).

Dr. C. M. THOMPSON

\*S 5. **Public Finance.**—(1) ( $\frac{1}{4}$  unit).

Professor BOGART

*Prerequisite:* At least 8 hours of economics, (including Economics 2) or 5 hours of economics and 6 of history and political science.

S 26. **Economic Resources of the United States.**—(2).

Mr. SCOVILL

**S 37. Salesmanship and Advertising.—(2).**

Mr. McJOHNSTON

*Prerequisite:* Economics 1 and 6, or the equivalent**\*S 122. Economic History of the United States.—( $\frac{1}{2}$  unit).**

Professor BOGART

**EDUCATION**WILLIAM CHANDLER BAGLEY, Ph.D., *Professor*CHARLES HUGHES JOHNSTON, Ph.D., *Professor*HORACE ADELBERT HOLLISTER, A.M., *Professor*GUY MONTROSE WHIPPLE, Ph.D., *Professor*JOSEPH CLIFTON BROWN, A.M., *Principal of the Training School*WILFORD STANTON MILLER, A.M., *Assistant and Secretary*MARGARET VARA COBB, A.M., *Assistant*HARRIET JOSEPHINE BERNINGER, A.B., *Assistant*LOTUS DELTA COFFMAN, Ph.D., *Professor in the Summer Session*HAROLD ORDWAY RUGG, Ph.D., *Instructor in the Summer Session*

The courses of the department fall into two general divisions: courses primarily for professional training and courses more specifically designed for general culture. The first division includes courses 1, 4, 9, 10, 11, 15, 18, and 20; the second division, courses 2, 5, 12, 13, and 16.

**Major:** 20 hours made up from any of the courses offered by the department.

**Minor:** 20 hours made up from either (a) courses in any one or two university subjects represented in the high school program; or (b) courses in any one or two of the following departments: psychology, sociology, philosophy, and political science; or (c) from one subject in (a) and one in (b).

**Introductory Courses**

**1. Introduction to Education.**—(a) The American public-school system; (b) the principles and aim of education; biological basis, heredity, and environment; instinct, habit, and habit-formation; memory, and the higher mental processes. (This course is required of all students who are given the official indorsement of the Appointments Committee for teaching positions in secondary schools.) *I or II; (4).*

Professor BAGLEY, Mr. MILLER

*Prerequisite:* Junior standing.

**2. History of Education.**—Evolution of educational theory, institutions, and practise as related to the contemporary developments of the Greek, Roman, medieval, and modern civilizations. *II; (5).*

Professor JOHNSTON

**Intermediate Courses**

**10. The Technics of Teaching.**—Types of classroom exercises and preparation of teaching plans; the hygiene of instruction; classroom management; professional ethics. Observation of teaching in neighboring high schools. (This course is required of all students who are given the official recommendation of the Appointments Committee for teaching positions in secondary schools.) *I or II. (3).*

Professor BAGLEY, Mr. BROWN

*Prerequisite:* Education 1.**16. Social Education.**—The school as a social factor in its relation to

the home, the church, and the state; the relation of education to child labor, vocation, and crime; the school as a community center; the social composition of student—and teaching—populations; educational extension. *I*; (3).

Mr. BROWN

*Prerequisite:* Two years of university work.

**25. Educational Psychology.**—Instinct; habit and acquisition of skill; perception and memory; conception, judgment, and reasoning. Lectures; demonstrations. *I*; (3).

Professor WHIPPLE

*Prerequisite:* Psychology 1 or Education 1.

#### Courses for Advanced Undergraduates and Graduates

**4. Problems of Educational Administration.**—The interpretation of present tendencies as exemplified in the school systems of typical cities and states, and in recent educational experiments in administration, discipline, and methods of teaching. *I*; (3).

Mr. BROWN

*Prerequisite:* Education 1, 2.

**5. Comparative Education.**—Organization, administration, and basic national ideals of the school systems of the United States, Germany, England, and France, with reference to secondary education and to the training of teachers. *I*; (3).

Professor JOHNSTON

*Prerequisite:* Education 1.

**6. Principles of High-school Education.**—The evolution of high schools and of the fundamental conceptions of secondary education; proposed reorganization; relation of high schools to the state systems; legal status; articulation with the elementary school, the college, the technical school, the community, and the home; the teaching staff; reconstruction of curriculums; "controls" of instruction; direction of "student activities." (This course is planned for those who expect to teach in secondary schools.) *I*; (3).

Professor JOHNSTON

*Prerequisite:* Education 1.

**27. High-school Curriculums.**—Important historic curriculums for secondary education; modern curriculum-making; professional supervision; textbooks, apparatus, and teaching devices; the psychology of high-school subjects; the constructing of curriculums for typical communities. *II*; (3).

Professor JOHNSTON

*Prerequisite:* Education 1 or 6 (preferably both).

**13-14. Educational Classics.**—Educational writings of Plato, Aristotle, Quintilian, Montaigne, Vittorino, Da Feltre, Milton, Locke, Comenius, Rousseau, Pestalozzi, Froebel, and Herbert Spencer. (Required for advanced degrees in education. In 1915-16 the modern period will constitute course 13; the ancient period course 14.) *I, II*; (3). Professor WHIPPLE, Mr. BROWN

*Prerequisite:* Education 1, 2.

**15. School Hygiene.**—Hygienic aspects of school architecture and equipment; heating, ventilation, and lighting of school buildings; hygiene of posture, exercise, and fatigue, and of reading and writing; program of studies and daily time table; mental health of teachers and pupils; contagious diseases

and the relation of school authorities to health authorities. (Graduate credit subject to approval of Executive Faculty.) *II; (2).* Professor WHIPPLE

*Prerequisite:* Education 1 or normal-school graduation, or two years of teaching experience, with at least junior standing.

**18. Method in Educational Research.**—Statistical and other methods. (This course is ordinarily required of all candidates for advanced degrees.) *I; (2).*

Mr. BROWN

*Prerequisite:* Education 1.

**20a. Theory of Supervision.**—The training of teachers in service; measuring educational products; qualities of merit and causes of failure in teachers; selection of teachers; organization of teachers' meetings and other agencies for improving the service. *II; (3).*

Professor BAGLEY

*Prerequisite:* Education 1.

[**20b. Theory and Practise of Supervision.**—Identical with 20a except for the addition of a period each week devoted to the observation and criticism of teaching in elementary and high schools. *II; (3).* Not given, 1915-16.]

*Prerequisite:* Education 1.]

**41. Vocational Education.**—Social significance; institutions and methods in elementary and secondary schools; federal, state, and municipal provisions; recent legislation; present tendencies. *I; (3).* Professor JOHNSTON

*Prerequisite:* Education 1 or an equivalent satisfactory to the instructor.

**42. Auxiliary Education.**—Institutions and methods for training defectives and delinquents; Binet-Simon tests and other methods of mental diagnosis; morons and moral delinquents; sensory defectives (blind and deaf); public institutions of auxiliary education and their administration. *II; (2).*

Professor WHIPPLE

**43. Mental Tests.**—Tests of sensory capacities; attention; memory; learning; suggestibility; inventiveness; diagnosis of mental age; general intellectual status; mental retardation. Laboratory. *II; (2).* Professor WHIPPLE

*Prerequisite:* Education 25 or the equivalent, and the consent of the instructor.

**45. Problems in Educational Psychology.**—*II; (2).* Professor WHIPPLE

#### Courses for Graduates

**101. Seminar in Educational Theory.**—Topic, 1915: The higher mental processes in relation to a philosophy of education. *I; (1 unit).*

Professor BAGLEY, Professor BODE

[**104. Seminar in Administration and Supervision.**—Once a week. *II; (1 unit).* Not given, 1915-16.]

[**105. Seminar in History of Education.**—Not given, 1915-16.]

**106. Seminar in Secondary Education.**—Organization, administration, and special methods of secondary education. Reports and discussions of technical investigations in the fields of high school administration and pedagogy. *II; (1 unit).*

Professor JOHNSTON

[**108. The History of Vocational and Industrial Education.**—*II; (1 unit).* Not given, 1915-16].

[**111. Practise Teaching.**—Not given, 1915-16.]

**112. Principles of Education.**—(For graduate students who are not majoring in education and who have not taken undergraduate courses in education.) Survey of the American public-school system; leading principles and doctrines of educational science; technics of teaching and problems of class management. *Twice a week. II; (½ unit).* PROFESSOR BAGLEY

[**119. The Elementary Curriculum.**—The functions and values of elementary-school studies; time allotments; construction of curriculums. *Twice a week. II; (1 unit).* Not given, 1915-16.]

**125. Seminar in Educational Psychology.**—*Once a week. I; (1 unit).*

Professor WHIPPLE

**Departmental Conference.**—All graduate students majoring in education are expected to meet with the department staff every alternate Monday from 7 to 9 p. m. *I, II; (no credit).*

#### Summer Session Courses—Education and Psychology

##### Courses for Undergraduates

**S 1a. Principles of Education.**—The function of education; formal and informal education; the relation of physical and mental development to the art of teaching. *(3).* Mr. MILLER

*Prerequisite:* Junior standing, (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

**S 1b. The Educational System.**—The school system of the United States; its present organization, its origin, its distinctive characteristics as compared with other systems; its present problems. Lectures; readings. *(1).* Professor BAGLEY

*Prerequisite:* Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet the requirement).

**S 2. History of Education.**—For description see Education 2. *(2½).* Mr. RUGG.

*Prerequisite:* Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

**S 10a. The Technics of Teaching.**—Education S 10a and S 10b are equivalent to Education 10, which is one of the courses required by Senate ruling for the official recommendation of the Appointments Committee. For description see Education 10. *(2).* Professor HOLLISTER

*Prerequisite:* Education 1, or its equivalent.

**S 10b. Class Management.**—Education 10a and S 10b are equivalent to Education 10 which is one of the courses required by Senate ruling for the official recommendation of the Appointments Committee. For description see Education 10. *(1).* Professor BAGLEY

*Prerequisite:* Education 1, or its equivalent.

**S 25. Educational Psychology.**—For description see Education 25. *(2).* Professor WHIPPLE

*Prerequisite:* Junior standing, (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

**Courses for Undergraduates and Graduates**

\***S 4. School Organization and Administration.**—The establishment of schools and provisions for their administration; units of control; maintenance; training and selection of teachers. (2). Professor HOLLISTER

*Prerequisite:* Education 1 or equivalent (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

\***S 6. The Principles of High-School Education.**—For description see Education 6. (2). Professor JOHNSTON

*Prerequisite:* Education 1, or equivalent. (High-school teachers and principals may, in the discretion of the instructor, be admitted to the course without the prerequisite.)

\***S 18. Method in Educational Research.**—For description see Education 18. (1½). Mr. RUGG

*Prerequisite:* Education 1.

\***S 20. Supervision.**—The limitations, types, functions, standards, and devices of supervisors; the subject limits and time limits of the course of study, and its adaptation to types of mind; the rating of teachers; improvement of teachers in service; the technics of criticism. Lectures; readings; investigation of special problems. (For principals, superintendents, and supervisors.) (2). Professor COFFMAN

*Prerequisite:* Education 1, or equivalent. (Superintendents, principals, and supervisors may, in the discretion of the instructor, be admitted to the course without the prerequisite.)

\***S 21. Units, Scales, and Standards.**—Units, scales, and standards for measuring educational achievement or determining progress in arithmetic, spelling, handwriting, reading, composition, drawing, history, and geography. Lectures; readings; investigation of a special problem. For school superintendents. (2). Professor COFFMAN

*Prerequisite:* Education 1 or equivalent. (Superintendents, principals, and supervisors may, in the discretion of the instructor, be admitted to the course without the prerequisite.)

\***S 41. Vocational Education.**—For description see Education 41. (2). Professor JOHNSTON

*Prerequisite:* Education 1 or equivalent. (Superintendents, principals, and supervisors may, in the discretion of the instructor, be admitted to the course without the prerequisite.)

\***S 43. Mental Tests.**—For description see Education 43. (1). Associate Professor WHIPPLE

*Prerequisite:* Education 25 or its equivalent, and the consent of the instructor.

\***S 44. History of Industrial and Vocational Education.**—Relation to general school education; earlier historic movements and the contribution of the educational classics; industrial training in America; agricultural and industrial high schools; secondary and higher technical schools; continuation schools. (1½). Mr. RUGG

*Prerequisite:* Education 2 or its equivalent.

## Courses for Graduates

\*S 106. High School Government.—Legal provisions; theories of student control; supervision and inspection. ( $\frac{1}{2}$  unit). Professor HOLLISTER

*Prerequisite:* Graduate standing.

\*S 119. Seminar in Elementary Education: The Elementary Curriculum.—The administration of the elementary curriculum; its origin and development. ( $\frac{1}{2}$  unit). Professor COFFMAN

*Prerequisite:* Graduate standing.

\*S 125. Seminar in Educational Psychology.—( $\frac{1}{2}$  unit).

Associate Professor WHIPPLE

*Prerequisite:* Graduate standing.

\*S 127. High School Curriculums.—Curriculum organization and special methods in the high school; comparisons with foreign secondary school systems. ( $\frac{1}{2}$  unit). Professor JOHNSTON

*Prerequisite:* Graduate standing.

\*S 129. The Theory of Educational Values.—Educational values; common elements in the elementary and secondary programs. Lectures; readings; discussions. ( $\frac{1}{2}$  unit). Professor BAGLEY

*Prerequisite:* Graduate standing.

## ELECTRICAL ENGINEERING

ELLERY BURTON PAIN, M.S., E.E., *Professor; Acting Head of the Department*  
MORGAN BROOKS, Ph.B., M.E., *Professor*

EDWARD HARDENBERGH WALDO, A.B., M.S., M.E., *Assistant Professor*

PHILIP SHERIDAN BIEGLER, B.S., E.E., *Assistant Professor*

TRYGVE D YENSEN, M.S., E.E., *Research Assistant Professor*

LEONARD VAUGHAN JAMES, M.S., E.E., *Associate*

IRA WILLIAM FISK, M.S., E.E., *Associate*

ABNER RICHARD KNIGHT, M.E., *Associate*

CHARLES RUBY MOORE, B.S., *Associate*

JOHN WILLIAM DAVIS, B.S., *Instructor*

4. Elementary Electrical Engineering.—Electrical machinery; selection, installation, and operation; distribution of power; motor applications. II; (2). Professor BROOKS

*Prerequisite:* Physics 1a-1b, 3a-3b; junior standing.

8. Electric Currents and Apparatus.—Direct and alternating current circuits and machines; storage batteries. (For chemical engineers.) II; (3). Professor BROOKS, Mr. DAVIS

*Prerequisite:* Physics 1a-1b, 3a-3b; registration or credit in Mathematics 7; registration in Electrical Engineering 68.

11. Direct Current Apparatus.—Generators, motors, distribution circuits; storage batteries. (For mechanical engineers.) I; (3). Professor BROOKS

*Prerequisite:* Physics 1a-1b, 3a-3b, Mathematics 8 or 9.

12. **Alternating Current Apparatus.**—Generators and motors, transformers, distribution systems. (For mechanical engineers.) *II*; (3).

Professor BROOKS

*Prerequisite:* Electrical Engineering 11, 61.

25. **Direct Current Apparatus.**—Electric and magnetic circuits; direct current generators and motors. *I*; (4). Mr. JAMES, Mr. FISK, Mr. KNIGHT

*Prerequisite:* Physics 1a-1b, 3a-3b; Mathematics 9.

26. **Alternating Currents.**—Mathematical and graphical treatment of periodic currents; phenomena in transmission lines and transformers. *II*; (4).

Mr. JAMES, Mr. FISK, Mr. KNIGHT

*Prerequisite:* Electrical Engineering 25.

35. **Alternating Current Apparatus.**—Transformers and generators. *I*; (4). Professor PAINE, Mr. JAMES, Mr. FISK

*Prerequisite:* Electrical Engineering 26, 76.

36. **Alternating Current Apparatus.**—Synchronous, induction, and commutator motors; rotary converters; distributed inductance and capacity; transient phenomena. *II*; (4). Professor PAINE, Mr. JAMES, Mr. FISK

*Prerequisite:* Electrical Engineering 35, 85.

55. **Electrical Design.**—Electromagnets and dynamos, direct and alternating; transformers. Gray's *Electrical Machine Design*. *I*; (2).

Assistant Professor WALDO, Mr. KNIGHT

*Prerequisite:* Electrical Engineering 26; registration in Electrical Engineering 35.

56. **Electrical Design.**—Induction motors and converters; power plant design. Gebhardt's *Steam Power Plant Engineering*. *II*; (4).

Assistant Professor WALDO, Mr. KNIGHT

*Prerequisite:* Electrical Engineering 35, Mechanical Engineering 2.

61. **Direct Current Laboratory.**—Circuits and machines. (For mechanical engineers.) *I*; (1).

Assistant Professor BIEGLER, Mr. MOORE, Mr. DAVIS

*Prerequisite:* Registration in Electrical Engineering 11.

62. **Alternating Current Laboratory.**—Alternating current circuits and machines. (For mechanical engineers.) *II*; (1).

Assistant Professor BIEGLER, Mr. MOORE, Mr. DAVIS

*Prerequisite:* Registration in Electrical Engineering 12.

64. **Electrical Engineering Laboratory.**—Testing of dynamos and motors. *II*; (1). Assistant Professor BIEGLER

*Prerequisite:* Registration in Electrical Engineering 4.

68. **Electrical Engineering Laboratory.**—Direct and alternating current circuits and machines. *II*; (1.). Mr. DAVIS

*Prerequisite:* Registration in Electrical Engineering 8.

**71-72. Electrical Engineering Laboratory.**—The construction of special apparatus or some other work approved by the department. (Elective for juniors and seniors.) *I, II; \*(1 to 3).*

Mr. MOORE

**75. Electrical Engineering Laboratory.**—Direct current laboratory accompanying Electrical Engineering 25. *I; (2).*

Assistant Professor BIEGLER, Mr. DAVIS

*Prerequisite:* Registration in Electrical Engineering 25.

**76. Electrical Engineering Laboratory.**—Determination of the flux and E.M.F. waves of alternators. Alternating current circuits, instruments. *II; (2).*

Assistant Professor BIEGLER, Mr. DAVIS

*Prerequisite:* Electrical Engineering 25, 75; registration in Electrical Engineering 26.

**85. Electrical Engineering Laboratory.**—Advanced alternating current testing. *I; (2).* Assistant Professor BIEGLER, Mr. MOORE, Mr. DAVIS

*Prerequisite:* Electrical Engineering 76; registration in Electrical Engineering 35.

**86. Electrical Engineering Laboratory.**—Advanced alternating current testing. *II; (2).* Assistant Professor BIEGLER, Mr. MOORE, Mr. DAVIS

*Prerequisite:* Electrical Engineering 85; registration in Electrical Engineering 36.

**90. Lighting.**—Electric lamps and other illuminants, and their effective use; interior wiring; methods of distribution. (For architects.) *II (half semester only); (1).*

Professor BROOKS

*Prerequisite:* Junior standing.

**92. Lighting and Wiring.**—First half of semester same as Electrical Engineering 90. Further study of distribution, fusing, underwriters' rules; motors. (For architectural engineers.) *II; (2).*

Professor BROOKS

*Prerequisite:* Junior standing.

**95-96. Seminar.**—Electrical railroading; illumination; telegraphy; telephony; storage batteries; electric metallurgy. *I, II; (1).*

Professor PAINE

*Prerequisite:* Junior standing.

**98. Thesis.**—First semester, preliminary reading and investigation; second semester, completion. *II; (3).*

Department staff

#### Courses for Graduates

Entrance upon graduate work in electrical engineering presupposes the full undergraduate curriculum in that subject.

**101. Advanced Alternating Currents.**—The theory of transient phenomena; polyphase circuits; measuring apparatus. *Twice a week; I, II; (1½ units).*

Professor PAINE

**103. Electrical Design.**—Plans for an electrical machine or apparatus of specified character; or for the arrangement of an electrical plant; or for the installation of such machinery or apparatus. *Twice a week; I, II; (1 unit).*

Assistant Professor WALDO

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\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

104. **Telegraphy and Telephony.**—Once a week; I, II; (1 unit).

Professor BROOKS

105. **Electrical Engineering Research.**—Investigation of electrical phenomena, or tests of some electrical machine, or of a plant of such machines. Twice a week; I, II; (1 to 3 units). Professor Paine

106. **Illumination.**—Once a week; I, II; (1 unit).

Professor BROOKS

## ENGINEERING

(See ARCHITECTURE, CERAMIC ENGINEERING, CIVIL ENGINEERING, DRAWING, ELECTRICAL ENGINEERING, MECHANICAL ENGINEERING, MECHANICS, MINING ENGINEERING, MUNICIPAL AND SANITARY ENGINEERING, PHYSICS, RAILWAY CIVIL ENGINEERING, RAILWAY ELECTRICAL ENGINEERING, and RAILWAY MECHANICAL ENGINEERING.)

## THE ENGLISH LANGUAGE AND LITERATURE

(Including RHETORIC and PUBLIC SPEAKING)

STUART PRATT SHERMAN, Ph.D., *Professor, Chairman*

DANIEL KILHAM DODGE, Ph.D., *Professor*

THOMAS ARKLE CLARK, B.L., *Professor*

EDWARD FULTON, Ph.D., *Associate Professor*

EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor*

HARRY GILBERT PAUL, Ph.D., *Assistant Professor*

FRANKLIN WILLIAM SCOTT, Ph.D., *Assistant Professor, Secretary*

HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor*

JACOB ZEITLIN, Ph.D., *Associate*

CHARLES HENRY WOOLBERT, A.M., *Associate*

HERBERT LE SOURD CREEK, Ph.D., *Associate*

CLARENCE VALENTINE BOYER, Ph.D., *Associate*

GERTRUDE SCHOEPPEL, Ph.D., *Associate*

HARRY FRANKLIN HARRINGTON, A.M., *Associate*

MARTHA JACKSON KYLE, A.M., *Associate*

ARTHUR RAY WARNOCK, A.B., *Acting Instructor*

CLARISSA RINAKER, Ph.D., *Instructor*

EASLEY STEPHEN JONES, A.M., *Instructor*

MERVIN JAMES CURL, A.M., *Instructor*

HARRISON MCJOHNSTON, A.M., *Instructor*

HAROLD M HILLEBRAND, Ph.D., *Instructor*

EARLE STANLEY ALDEN, A.M., *Instructor*

ROBERT CALVIN WHITFORD, A.M., *Instructor*

LYNN HAROLD HARRIS, Ph.D., *Instructor*

RALPH EARLE TIEJE, A.M., *Instructor*

CARL SAWYER DOWNES, Ph.D., *Instructor*

WILLIAM EBEN SCHULTZ, Ph.D., *Instructor*

ALLENE GREGORY, Ph.D., *Instructor*

SIGURD OSBORN HUSTVEDT, Ph.D., *Instructor*

ROGER SHERMAN LOOMIS, B.Litt., A.M., *Tutor*

SADIE ANNIS HARBARGER, A.M., *Assistant*

RUTH KELSO, A.M., *Assistant*

LEW R SARETT, A.B., *Assistant*

EMERSON GRANT SUTCLIFFE, A.B., *Assistant*

THOMAS BLAINE STANLEY, A.B., *Assistant*  
 RAYMOND EPHRAIM DIXON, A.M., *Assistant*  
 JAMES MANLEY PHELPS, A.B., *Assistant*  
 ROBERT BRUCE WEIRICK, A.M., *Assistant*  
 CLYDE BYRON BECK, A.B., *Assistant*  
 CARRYL NELSON THURBER, A.B., *Assistant*  
 MYRTLE AMY CRUZAN, A.B., *Assistant*  
 BEATRICE VIRGINIA COPELEY, A.B., *Assistant*

**Major:** 20 hours in English excluding Rhetoric 1, 2, and English 10, and including at least 10 hours in English literature, at least 3 hours in composition, and at least 1 one-year course, or its equivalent, from the advanced group of courses.

**Minor:** 20 hours in either (a) one foreign language; or (b) in any two foreign languages; or (c) in one foreign language and philosophy; or (d) in one foreign language and history.

#### *A. LITERATURE AND LANGUAGE*

##### *Elementary Courses*

**1-2. Survey of English Literature.**—(Credit is not given for either semester separately, nor for the course in addition to course 10 or course 20.) *I, II; (4).*

Professor SHERMAN, Assistant Professor BALDWIN, Dr. CREEK, Dr. SCHOEPPERLE, Dr. RINAKER, Dr. HILLEBRAND

*Prerequisite:* One year of college work.

**10-11. Introduction to Literature.**—First semester: The forms of poetry. Second semester: The forms of prose literature. (This course is intended only for those who expect to include a considerable amount of literature, in English or in some other language, in their curriculum. Credit is not given for the course in addition to course 1 or course 20. One semester's work is credited toward a major in English. Credit is not given for the first semester separately.) *I, II; (3).*

Professor DODGE, Assistant Professor PAUL, Dr. ZEITLIN

*Prerequisite:* The minimum entrance requirements in English.

**12-13. American Literature.**—(Credit is not given for either semester separately.) *I, II; (2).* Assistant Professor PAUL

*Prerequisite:* English 1-2 or 10-11.

**17. The English Language.**—History, characteristics, and usage of modern English. *I; (3).* Associate Professor FULTON

*Prerequisite:* Rhetoric 1-2.

**20. Chief English Writers.**—(Offered only for those whose program admits of but one semester's work in English, and who therefore may not register for English 1. It is not accepted, like course 1, as a prerequisite for more advanced courses. Credit is not given for the course in addition to course 1 or course 10.) *I or II; (4).*

Dr. BOYER, Mr. JONES, Mr. LOOMIS, Mr. WHITFORD, Dr. DOWNES

*Prerequisite:* One year of college work.

**23. Introduction to Shakespeare.—I or II; (3).**

Professor SHERMAN, Dr. HILLEBRAND

*Prerequisite:* English 1-2 or 10-11.**Intermediate Courses***Prerequisite:* Eleven hours of English literature, or eight hours of English literature and eight hours of a foreign language.**21-22. Literary Study of the Bible.**—Hebrew literature as an expression of the life of the race that produced it; the ethical and artistic debt of modern life to ancient Hebrew thought. (Either semester may be taken separately.) *I, II; (3).*

Assistant Professor BALDWIN

**24. English Literature of the Victorian Period.—II; (3).** Miss KYLE**29. English Literature From 1557 to 1688, Exclusive of the Drama.—I; (3).**

Assistant Professor BALDWIN

**31. English Literature From 1688 to 1789.—II; (3).**

Assistant Professor PAUL

**32. The Critical Essayists of the 19th Century.—II; (3).**

Associate Professor FULTON

**33. English Literature From 1789 to 1837.—I; (3).** Dr. ZEITLIN**Advanced Courses for Undergraduates and Graduates***Prerequisite:* Sixteen hours of English literature. These courses, however, are open to any junior or senior with the approval of the instructor concerned.**3. The Poetry of Milton.**—Origins, forms, artistic and ethical values; Milton's place in English literary history. *II; (3).*

Assistant Professor BALDWIN

**4. History and Principles of English Versification.—I; (2).**

Dr. CREEK

**5. Shakespeare.**—Intensive study of a few plays, with special emphasis on *Hamlet*. *II; (3).*

Professor DODGE

**25-26. Chaucer and His Contemporaries.**—(The first semester, dealing with Chaucer exclusively, may be taken for separate credit.) *I, II; (3).*

Assistant Professor JONES

**8-9. Old English (Anglo-Saxon).**—Grammar; short poems; *Beowulf*. (The first semester may be taken separately.) *I, II; (3).* Professor DODGE**27-28. Studies in the History of Journalism.**—First semester: English literary periodicals and the periodical essay in the eighteenth century. Second semester: The magazine in America. Assistant Professor SCOTT**41-42. Teachers' Course.**—Methods of teaching English literature and composition in the high school. (This course is not credited toward advanced degrees, or toward a major in English. Either semester may be taken separately.) *I, II; (2).*

Assistant Professor PAUL

**18. Modern English Grammar.**—Sentence structure and analysis; grammatical categories; peculiarities of English syntax. *II; (3).*

Dr. ZEITLIN

35-36. **The English Drama (Exclusive of Shakespeare).**—First semester: From the beginning to 1600. Second semester: From 1600 to 1700. (Either semester may be taken for separate credit.) *I, II; (3).*

Professor DODGE, Professor SHERMAN

38. **The Arthurian Tradition in England.**—The historical Arthur; Celtic tales; Old French romances (in translation); the tradition in England from the early romances to Arnold, with special attention to Malory and Tennyson. *II; (3).*

Dr. SCHOEPPELLE

[39. **Introduction to the Literature of the Middle Ages.**—European culture from the fourth century; the relation of English and continental literature, to the fourteenth century. *I; (3).* Not given, 1915-16. Dr. CREEK]

50. **Celtic Literature in English Translation.**—Irish, Scotch, Gaelic, and Welsh literatures, with special attention to the Cuchulainn and Ossianic cycles of romances and the Mabinogion. Celtic influence in English literature. *I; (2).*

Dr. SCHOEPPELLE

45. **The Development of the Modern Drama.**—Dramatic tendencies in the nineteenth century, both in England and on the Continent; representative readings; lectures. *I; (2).*

Dr. HILLEBRAND

#### **Courses for Graduates**

101. **Research in Special Periods.**—Competent graduate students are encouraged to seek the advice and assistance of the department of English and to submit to the department plans for study in the language or literature of the periods mentioned below.

- |   |   |
|---|---|
| A. Anglo-Saxon language and literature  | Professor DODGE, Dr. ZEITLIN                  |
| B. Thirteenth and Fourteenth Centuries. | Assistant Professor JONES                     |
| C. Sixteenth Century                    | Professor DODGE                               |
| D. Seventeenth Century                  | Assistant Professor BALDWIN                   |
| E. Eighteenth Century                   | Professor SHERMAN, Assistant Professor PAUL   |
| F. Nineteenth Century                   | Professor SHERMAN, Associate Professor FULTON |

106. **English Literary Criticism From Dryden to Coleridge.**—*Twice a week. I, II; (1 unit).* Associate Professor FULTON

[108. **The English Epic.**—The 16th, 17th, and 18th Centuries, from the point of view of classical theory. *I, II; (1 unit).* Not given, 1915-16. Associate Professor FULTON]

110. **Old English (Anglo-Saxon) Poetry.**—*Twice a week. I, II; (1 unit).* Professor DODGE

[113. **Historical Prose Syntax.**—The forces, native and foreign, in the development of English prose sentence structure. *I, II; (1 unit).* Not given, 1915-16. Dr. ZEITLIN]

114. **The Development of the Essay.**—Types of the English essay; Continental influences and classical origins. *I, II; (2).* Dr. ZEITLIN

[126. **English Ballads and Metrical Romances.**—*I, II; (1 unit).* Not given, 1915-16. Assistant Professor JONES]

128. **Spenser and the Beginnings of the English Renaissance.**—The persistence of certain medieval traditions reinforced by the revival of classical learning; Catholicism and Calvinism as sources of literary inspiration. *Twice a week. I, II; (1 unit).* Assistant Professor JONES

[135. **Problems in American Literature.**—*I, II; (1 unit).* Not given, 1915-16. Assistant Professor PAUL]

136. **The Transition From the Seventeenth to the Eighteenth Century: The Rise of Classicism.**—*Twice a week. I, II; (1 unit).*

1915-16. Assistant Professor PAUL

[137. **Nineteenth Century Prose Writers.**—The relation of literature to social forces; the works of Mill, Carlyle, Newman, Ruskin, Arnold, and Pater. *Twice a week. I, II; (1 unit).* Not given, 1915-16. Professor SHERMAN]

138. **The Romantic Movement in England.**—*I, II; (1 unit).*

Professor SHERMAN

### B. RHETORIC

#### Elementary Courses

\*1-2. **Rhetoric and Themes.**—Required for students in the Colleges of Liberal Arts and Sciences, Commerce, Engineering, and Agriculture. *I, II; (3).* Assistant Professor SCOTT in charge; Associate Professor FULTON, Assistant Professor JONES, Dr. CREEK, Dr. BOYER, Dr. SCHOEPPELLE, Mr. HARRINGTON, Dr. RINAKER, Mr. JONES, Mr. CURL, Dr. HILLEBRAND, Mr. ALDEN, Mr. WHITFORD, Dr. HARRIS, Mr. TIEJE, Dr. DOWNES, Dr. SCHULTZ, Dr. GREGORY, Dr. HUSTVEDT, Mr. LOOMIS, Miss HARBARGER, Miss KELSO, Mr. SUTCLIFFE, Mr. STANLEY, Mr. DIXON, Mr. WEIRICK, Mr. THURBER, Miss CRUZAN, Miss COBLEY

*Prerequisite:* The minimum entrance requirements in English.

*Note:* For the benefit of those whose course is irregular, a limited number of sections in each semester take up the work of the other semester. The course is not counted toward a major in English.

Students who show in the first two weeks that they are not prepared to do composition work of collegiate grade will be assigned to a special course parallel to Rhetoric 1, but involving additional work.

#### Intermediate Courses

3. **English Composition.**—Short themes, with an occasional long theme. *I or II; (3).* Mr. CURL, Mr. JONES, Mr. ALDEN

*Prerequisite:* Rhetoric 1-2.

6-7. **Narrative Composition.**—Short story writing. (Intended for those who have some aptitude for literary work). *I, II; (3).* Mr. CURL

*Prerequisite:* Two years of college work and the consent of the instructor.

10. **Business Writing.**—Correspondence; sales letters; business reports and summaries. Lectures; discussions. (Not counted toward a major in English). *I or II; (2).*

Mr. McJOHNSTON, Mr. WARNOCK, Mr. STANLEY, Mr. THURBER

*Prerequisite:* Rhetoric 1-2.

12. **The Collecting and Writing of News.**—Gathering news; writing the news-story; types of newspaper narratives; news values. *I; (3).*

Mr. HARRINGTON

*Prerequisite:* Rhetoric 1-2.

\*Students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from the first semester's work. The examination for those desirous of meeting this qualification will be given at 7 p. m., September 18, in room 228 N. H.

**13. The Newspaper.**—(A continuation of Rhetoric 12.) Interviewing and newspaper correspondence; organization and mechanical details of the newspaper. Practise in writing for newspapers. *Six laboratory periods and three lectures a week.* II; (3). Mr. HARRINGTON

*Prerequisite:* Rhetoric 1-2, 12.

**21. Sales Correspondence.**—Successful sales letter writing; planning the campaign; the follow-up letter; analysis of markets. I; (2).

Mr. McJOHNSTON

*Prerequisite:* Rhetoric 10. Open to students in business administration only.

**22. Summarizing and Briefing.**—Summarizing, briefing, and making reports; abstracts of correspondence on file; summarizing of commercial and economic data for the solution of business problems. (For students in the College of Commerce and Business Administration). I; (2).

Mr. McJOHNSTON

*Prerequisite:* Rhetoric 10.

**25-26. Senior Conferences (Courses in Commerce and Business Administration).**—Each senior is required to present all papers written during the year for review and criticism. Rewriting may be required if they are open to serious criticism. (Required of all seniors in the College of Commerce and Business Administration). I, II; (1). Mr. McJOHNSTON

**19. Agricultural News Writing.**—Class exercises; lectures; gathering and preparing material for agricultural papers. II; (3).

Assistant Professor SCOTT

*Prerequisite:* Junior or senior standing in the College of Agriculture; Rhetoric 1-2.

#### **Advanced Courses for Undergraduates and Graduates**

**15-16. Editorials and Special Articles.**—Sources and treatment of material for editorials and articles; the interpretation of news; journalistic backgrounds; the relation of current events to the social sciences. Assigned readings; preparation of editorials, articles, and reviews. I, II; (3).

Assistant Professor SCOTT

**17. Advanced Composition.**—Structure; criticism of current periodical literature; the developing of material for reports, magazine articles, etc. (Open to a limited number of students, and only on recommendation). II; (3).

Mr. ALDEN

*Prerequisite:* Two years of college work.

**26-27. Editorial Practise.**—Reading "copy"; writing headlines; making up; editorial supervision; proof reading; type selection. *Five hours' desk work and one lecture a week.* I, II; (3). Mr. HARRINGTON

*Prerequisite:* Rhetoric 12, 13, or the consent of the instructor.

**[28. Newspaper Problems and Policies.]**—The relation of the newspaper to the public. I; (2). Not given, 1915-16. Mr. HARRINGTON

*Prerequisite:* Rhetoric 26-27.]

**29. Making a Country Newspaper.**—(Discussions intended primarily for seniors who expect to enter the country field.) Small town conditions;

problems affecting rural newsgathering; country correspondence; circulation; advertising; business efficiency; print-shop equipment. Special investigations. *II*; (2). Mr. HARRINGTON

*Prerequisite:* Junior or senior standing.

### C. PUBLIC SPEAKING

**1. Oral Expression.**—Theory and practise of elocution and expression, both for public and private address. (No credit is given for this course alone; it must be followed by Public Speaking 2.) *I*; (2).

Mr. WOOLBERT, Mr. SARETT, Mr. PHELPS

*Prerequisite:* Rhetoric 1-2.

**2. Extemporaneous Speaking.**—Discussion of topics of current interest, assigned and chosen; adaption of speaking manner to subject matter, length, and attendant circumstances of the address; cultivation of facility in thinking on the platform. *II*; (2). Mr. WOOLBERT, Mr. SARETT, Mr. PHELPS

*Prerequisite:* Public Speaking 1.

**3. Argumentation.**—Argumentative discourse; meeting the contentions of an opponent; briefing, speech-writing, criticism of the literature of debate. Text and exercises. *I*; (3). Mr. SARETT

*Prerequisite:* Public Speaking 1 and 2.

**4. Debate.**—The spoken debate; team and individual competition; debates on current issues. *II*; (3). Mr. SARETT

*Prerequisite:* Public Speaking 3.

**5. Persuasion.**—The winning of individuals and audiences by means of written and spoken appeal; platform manner and methods. *I*; (2). Mr. WOOLBERT

*Prerequisite:* Public Speaking 1 and 2.

**6. The Forms of Public Address.**—Types and modes of speeches; speech style, criticism, and standards; practise in using various forms. *II*; (2). Mr. WOOLBERT

*Prerequisite:* Public Speaking 1 and 2.

**7. A Study of Orators and Oratory.**—The lives, times, and works of distinguished speakers. Required readings and reports, chiefly oral in the form of speeches; discussions, topical speeches, and declamations. *I*; (2). Mr. WOOLBERT

*Prerequisite:* Public Speaking 1 and 2.

**10. Interpretation and Dramatization of Literature.**—Oral interpretation of standard literature; the interpretation and staging of plays. *II*; (2). Mr. WOOLBERT, Mr. PHELPS

*Prerequisite:* Public Speaking 1.

### Summer Session Courses

#### A—Literature and Language

**S 2a. Survey of English Literature.**—With S 2b this course covers the work of English 2. (2). Dr. BOYER

*Prerequisite:* One year of college work or the equivalent.

**S 2b. Survey of English Literature.**—With English S 2a, this course covers the work of English 2. (2). Assistant Professor JONES

*Prerequisite:* One year of college work or the equivalent.

**S 23. Shakespeare.**—Two Gentlemen of Verona, Midsummer Night's Dream, Richard III, Romeo and Juliet, Much Ado, Twelfth Night, Othello, Lear, Coriolanus, The Tempest. Text: *Tudor Shakespeare*. (2½).

Professor SHERMAN

*Prerequisite:* One year of college English or an equivalent.

**S 31. English Literature from 1688 to 1789.**—(2½). Dr. BOYER

*Prerequisite:* Three semesters of college work, including English 1-2 or 10-11.

\***S 8. Old English (Anglo-Saxon).**—Grammar and reading (3).

Professor DODGE

*Prerequisite:* Two years of college English.

**S 25. Chaucer.**—*Selections from the Canterbury Tales*. (3).

Assistant Professor JONES

*Prerequisite:* Two years of college work or the equivalent.

\***S 35. The Pre-Shakespearian Drama.**—Medieval and sixteenth century drama; Udall, Sackville and Norton, Llyl, Greene, Peele, Kyd, and Marlowe. (2½).

Professor DODGE

*Prerequisite:* Two years of college work.

\***S 101. Research in Special Periods.**—Individual conferences arranged with graduate students engaged upon definite pieces of investigation.

Professor DODGE, Professor SHERMAN, and Assistant Professor JONES

\***S 138. The Romantic Movement in England.**—Lectures; reading; theses; conferences. (1 unit). Professor SHERMAN

*Prerequisite:* Graduate standing or the consent of the instructor.

### B—Rhetoric

**S 1. Rhetoric and Themes.**—For description, see Rhetoric 1. (3). Mr. CURL

**S 2. Rhetoric and Themes.**—For description, see Rhetoric 2. (3). Mr. CURL

*Prerequisite:* Entrance credit in English.

### Business English

**S 10. Business Letter Writing, Including Sales Letters.**—(2). Mr. McJOHNSTON

*Prerequisite:* Six hours of freshman rhetoric.

### C—Public Speaking

**S 1. Oral Expression.**—Theory and practice of vocal methods and platform manner, both for public address and oral interpretation of literature. For description, see Public Speaking 1. (2). Mr. WOOLBERT

*Prerequisite:* Rhetoric 1 and 2 or equivalent.

**S 9. Interpretive Reading.**—Various types of literature from the point of view of oral expression; practise in interpreting chosen selections. (2).

Mr. WOOLBERT

*Prerequisite:* Public Speaking 1 or its equivalent.

**S 10. Special Problems in the Teaching of Oral English.**—Primarily for high-school teachers. (1).

Mr. WOOLBERT

*Prerequisite:* The consent of the instructor.

## ENTOMOLOGY

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Professor*

ALEXANDER DYER MACGILLIVRAY, Ph.D., *Associate Professor*

JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor*

ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor*

EDNA MOSHER, Ph.D., *Instructor*

CLYDE CARNEY HAMILTON, B.S., *Graduate Assistant*

ALVAH PETERSON, A.M., *Assistant in the Summer Session*

**Major:** 20 hours from courses offered in the department, except Entomology 1, 4, and 16.

**Minors:** 20 hours in botany, physiology, zoology; horticulture and agronomy (see page 25).

Entomology as taught at the University is distinctly differentiated from the work in zoology. Beginning courses open to freshmen and without prerequisites are 1a-1b, 15, and 4. Course 1a-1b may be followed by 2 or 3, and course 15 by 7. Course 3 is not open to freshmen, and courses 5 and 13 are not open to freshmen or sophomores. Students preparing for service as economic entomologists should take as many of the courses offered as possible, including especially 2, 3, 4, 7, 8a-8b, 14, and 108. Those preparing for the teaching of zoology should take either 2 and 4, or 3 and 4, or all three of these courses.

**1a-1b. Elementary Entomology.**—Lectures; laboratory; field work. (Open to all students.) I, II; (2).

Assistant Professor FOLSOM, Dr. GLASGOW, Dr. MOSHER

**2. General Entomology.**—Field entomology; morphological and physiological entomology; collection and preservation of specimens; typical insects; adaptive structures and their utilities. (This course, taken with Entomology 3, forms a year's work, covering the whole field, but either may be taken separately.) I; (5).

Assistant Professor FOLSOM, Dr. GLASGOW

*Prerequisite:* Entomology, 1a-1b, or 4, or equivalent.

**3. General Entomology.**—Classification and determination of insects; life histories; ecological relations of insects. II; (5).

Assistant Professor FOLSOM, Dr. GLASGOW

*Prerequisite:* Entomology, 1a-1b, or 4, or equivalent.

**4. Introduction to Economic Entomology.**—Lectures; field work; laboratory. (Primarily for students in the College of Agriculture; may not be counted for satisfaction of group requirements in the College of Liberal Arts and Sciences.) I or II; (3). Assistant Professor FOLSOM, Dr. GLASGOW

**4a-4b. Introduction to Economic Entomology.**—Lectures; field work; laboratory. *Section A* for students of agriculture. *I; first half*; (2). *Section B*, for students of horticulture. *II; second half*; (3).

Assistant Professor FOLSOM, Dr. GLASGOW

**5. Introduction to Research.**—Preparation for thesis work. Library, language, manuscript, and advanced laboratory work on assigned topics. (Three hours in this course are required as a preparation for entomology thesis work.) *I or II; \*(3 to 5).*

Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM

*Prerequisite:* Entomology 2, 3; or 15, 7.

**6a-6b. Thesis Investigation.**—Subjects selected during the junior year. Three hours a day given to investigation, under the supervision of an instructor, during the senior year. *I, II; (5).*

Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM

**7. Systematic Entomology.**—The external anatomy of insects; terminology of the parts; identification of specimens representing the major groups. *I or II; (5).* Associate Professor MACGILLIVRAY, Dr. MOSHER

*Prerequisite:* Entomology 2, or 15.

**8a-8b. Advanced Economic Entomology.**—Assigned problems. Field laboratory, insectary, library, and manuscript work; practise in the operations of economic entomology. (Intended to prepare students for service as entomologists in experiment stations and other state and government positions. Agronomy 7 and Horticulture, 1, 2, and 3 should also be taken as a part of this preparation.) *I, II; (3).* Assistant Professor FOLSOM, Dr. GLASGOW

*Prerequisite:* Entomology 4, 2, 3.

**9. Advanced Systematic Entomology.**—The identification of the characters on which genera and species are based. *I or II; (5).*

Associate Professor MACGILLIVRAY, Dr. MOSHER

*Prerequisite:* Entomology 2 or 15, and 7.

**10. Taxonomy of Immature Insects.**—The external form of immature insects; identification of species. *I; (5).* Associate Professor MACGILLIVRAY

*Prerequisite:* Entomology 2 or 15, and 7.

**11. Classification of the Coccidæ.**—Methods of preparing scale insects for study; identification of genera and species; discussion of their morphology, metamorphosis, and phylogeny. *II; (5).* Associate Professor MACGILLIVRAY

*Prerequisite:* Entomology 2 or 15, and 7.

**12a-12b. Current Literature.**—Reports and discussion on assigned topics; presentation and discussion of contents of recent entomological publications, and of results of personal research. *I, II; (1).*

Assistant Professor FOLSOM

*Prerequisite:* One year of work in entomology.

**13. Medical Entomology.**—Insects and the transmission of disease; methods of control and prevention. (Primarily for advanced students preparing for medicine.) *II; (3).* Dr. GLASGOW

*Prerequisite:* Zoology 3, or its equivalent in microscopical technics.

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\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**14. Advanced Economic Entomology.**—Personal work under direction on assigned problems in economic entomology, to prepare advanced students for immediate service as state and government entomologists. Advantage will be taken of the operations and practical problems of the State Entomologist's office so far as available. *I, II, and six weeks in the summer; †(2 to 4).*

Professor FORBES, Assistant Professor FOLSOM

*Prerequisite:* Courses in elementary and advanced economic entomology and in systematic entomology and the consent of the instructor.

**15. Elementary Systematic Entomology.**—Characteristics of the orders, suborders, and more important families; the habits of representative species; field collections and laboratory studies on the anatomy and classification of insects. *I; (3).*

Associate Professor MACGILLIVRAY

**16. Apiculture.**—The essentials of bee-keeping. Practical operations; laboratory observations; collateral reading. *II; (2).*

Assistant Professor FOLSOM

#### Courses for Graduates

The prerequisite for graduate work in entomology is one years' work in biological courses, including an equivalent of either Zoology 1 or Entomology 1a-1b, or 4. Entrance upon major work in entomology requires the equivalent of Entomology 2 and 3.

Graduate students who have had at least one year of college work in biological courses may take for graduate credit any of the preceding courses except 1a-1b, 4, and 6a-6b. The following courses are open to graduate students only.

**102. Research in the Morphology and Embryology of Insects.**—*Twice a week; I, II; (1 or 2 units).*

Assistant Professor FOLSOM

**107. Systematic Entomology.**—*Five times a week; I, II; (1 or 2 units.)*

Associate Professor MACGILLIVRAY

**108. Research in Economic Entomology.**—*Once or twice a week; I, II; (1 or 2 units).*

Assistant Professor FOLSOM

**109. Research in Systematic Entomology.**—*Twice a week; I, II; (1 or 2 units).*

Associate Professor MACGILLIVRAY

#### Summer Session Courses

**S 1. General Field and Laboratory Course.**—Lectures, laboratory studies; field observations. For high school teachers. *(2).*

Assistant Professor FOLSOM

**\*S 2. Advanced Course.**—Instruction to meet the purposes of the individual student. *†(2 or 3).*

Assistant Professor FOLSOM

**S 3. Economic Entomology.**—Stages of development of common injurious insects; laboratory; field trips. *(3).*

Assistant Professor FOLSOM

**\*S 4. Advanced Economic Entomology.**—For description see Entomology 14. *(3).*

Professor FORBES, Assistant Professor FOLSOM

*Prerequisite:* 15 hours' credit in general and economic entomology.

<sup>t</sup>In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**FARM MANAGEMENT**

(See ANIMAL HUSBANDRY.)

**FINE ARTS**

(See ART AND DESIGN and MUSIC. Attention is called also to the courses in ESTHETICS offered by the departments of PHILOSOPHY, EDUCATION, ARCHITECTURE, and HOUSEHOLD SCIENCE.)

**FLORICULTURE**

(See HORTICULTURE.)

**FRENCH**

(See ROMANCE LANGUAGE AND LITERATURE.)

**GENETICS**

(See ANIMAL HUSBANDRY.)

**GEOLOGY**

(Including MINERALOGY, PALEONTOLOGY, and PHYSICAL GEOGRAPHY )

CHARLES WESLEY ROLFE, M.S., *Professor*WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor*THOMAS EDMUND SAVAGE, Ph.D., *Associate Professor*JOHN LYON RICH, Ph.D., *Instructor*FRANCIS MAURICE VAN TUYL, Ph.D., *Instructor*CLARENCE SAMUEL ROSS, A.M., *Assistant*HENRY METHUSALEM DUBoIS, A.M., *Assistant*MASON KENT READ, A.B., *Assistant*LUTHER EUGENE KENNEDY, A.M., *Assistant*

**Major:** 20 hours in any one of the following fields, including Geology 1a, and excluding Geology 3, 14, and 22. In addition to Geology 1a, the major in (a) general geology, must also include Geology 15 and 24; in (b) stratigraphy and paleontology, Geology 16; in (c) mineralogy and economic geology, Geology 2 and 6; in (d) geography, Geology 24, and at least one of the courses, Geology 8, 10, and 11.

**Minors:** 20 hours selected from courses in chemistry, zoology, botany, physics, and economics.

**Courses for Undergraduates**

1. Dynamic and Structural Geology.—The agents and processes involved in the development of the earth's present features. Lectures; laboratory; field trips. *I*; (5). *Professor ROLFE* in charge

*Prerequisite:* Chemistry 1 or an equivalent.

- 1a. Historical Geology.—The evolution of the earth and its life. Lectures; laboratory. (Continuing course 1 and introducing courses 9 and 16.) *II*; (5). *Associate Professor SAVAGE, Dr. VAN TUYL, and assistants*

*Prerequisite:* Geology 1 or 3.

2. Economic Geology.—The origin and manner of occurrence of minerals and rocks of economic importance, especially those of North America. Lectures; laboratory. *II*; (3). *Dr. VAN TUYL*

*Prerequisite:* Geology 5; 13a and 13b, or 1 and 1a.

3. General Geology.—Mineralogy; dynamic, historic, and economic geology; minerals; rocks; contour maps; fossils. Recitations; laboratory; field trips. (For students who wish to devote but one semester to geology.) I or II; (5). Professor ROLFE in charge

4. Thesis Course.—Field or laboratory problems; reports; maps, sections, and figures based on observations. II; (5).

Professor ROLFE, Professor BAYLEY, Associate Professor SAVAGE, Dr. RICH

5. Mineralogy.—Common ores and minerals of scientific importance; crystallography; characteristics of about 125 of the most important minerals; blow pipe analysis. Lectures; laboratory. I; (5). Professor BAYLEY in charge

Prerequisite: Chemistry 1, 2, 3, or 2a.

5a. Mineralogy.—The characteristics, origin, and transformations of the silicates. Lectures; laboratory. II; (3). Dr. VAN TUYL

Prerequisite: Geology 5.

8. Physiography of Europe.—The physiographic features of the continent of Europe; climate, resources; influence of geographic factors on industries; distribution of population. II; (3). Dr. RICH

Prerequisite: Geology 23 and 14.

10. Physiography of South and Central America.—Physiography; climate; resources. II; (3). Dr. RICH

Prerequisite: Geology 23 and 14.

11. Physiography of North America.—Typical physiographic provinces of North America, with especial emphasis on the United States. Lectures; readings; maps. I; (3). Dr. RICH

Prerequisite: Geology 23 and 14.

12. Geology of Soils.—The origin of the various classes of soils; mineral compositions; physical characteristics; transformations. (Valuable to students of agriculture and others interested in plant growth.) II; (5). Professor ROLFE

Prerequisite: Chemistry 1 or an equivalent.

13a. Engineering Geology.—Mineralogy; lithology. Lectures; laboratory. (Open only to students in engineering and ceramics.) I; (3). Dr. VAN TUYL

13b. Engineering Geology.—Dynamic and structural geology. Lectures; laboratory. (Open only to students in engineering and ceramics.) II; (3). Professor BAYLEY

14. Meteorology.—The heating and cooling, pressure, circulation, and moisture of the atmosphere; storms and weather forecasting; rainfall, climate. (To be taken by those who intend to do work in geography and agriculture; should be taken with Economics 26 by students of commerce.) I; (3). Dr. RICH

19. Field Geology.—(Introductory Course). The physiography and geology of a selected area, including the making of a map of the area and the submission of a satisfactory written discussion of its geology. *Four weeks in the early summer*; (3). Dr. VAN TUYL

Prerequisite: Geology 1 and 1a; 13a and 13b or 3 and 23.

**19a. Field Geology.**—Excursion to Central Kentucky and Mammoth Cave; valley trains of Wabash River; glacial border; Bedford limestone quarries; falls of the Ohio at Louisville; the Louisville cuesta; Mitchell limestone plateau; Mammoth Cave. (The trip involves an absence from the University of one week at the time of the Easter recess. Cost about \$30.00.) Credit on completion of satisfactory report. *II*; (1).

Associate Professor SAVAGE, or Dr. RICH

*Prerequisite:* Geology 1, 3, or 13b.

**21. Geology of Coal.**—The origin of coal; age, distribution, and stratigraphy of the coal deposits of North America; the Illinois or Eastern Interior basin. *I*; (3).

Associate Professor SAVAGE

*Prerequisite:* Geology 13b or an equivalent.

**31. Geology of Oil and Gas.**—The origin of oil and gas; stratigraphic relations; structural conditions, and occurrences in the oil fields of the United States. *II*; (3).

Associate Professor SAVAGE

**[22. Organic Evolution.]**—The evolution of plant and animal forms as indicated by the fossil record. *II*; (3). Not given, 1915-16.

Associate Professor SAVAGE

*Prerequisite:* Geology 1a, or one semester of zoology or botany.]

**23. Physiography of the Lands.**—Land forms; origin, development, and classification; relation between surface forms and rock composition and structure; influence of climate on land forms. (This course follows Geology 3 and presupposes a knowledge of the principal geologic processes.) *Five all-day field excursions.* *II*; (5).

Dr. RICH

*Prerequisite:* Geology 3 or 13a and 13b or 1.

#### Courses for Advanced Undergraduates and Graduates

**6. Geometrical and Optical Crystallography.**—Petrography; geometrical and optical properties of minerals with reference to symmetry; polarized light and its practical use in identifying rock-forming materials. *I*; (3).

Professor BAYLEY

*Prerequisite:* Geology 5, 5a.

**7. Petrography.**—Lectures: types of rocks and their origin and classification. Laboratory. *II*; (3).

Professor BAYLEY

*Prerequisite:* Geology 6.

**9. Paleontology.**—Invertebrate fossils, their classification and relationships; identification of fossils. *I*; (5).

Associate Professor SAVAGE, Dr. VAN TUYL

*Prerequisite:* Geology 1a; or senior standing in zoology or botany.

**15. Structural Geology.**—The arrangement of the rocks which form the earth's crust and their distribution on its surface; mountains; faults; folds; other diastrophic phenomena. *I*; (3).

Dr. VAN TUYL

*Prerequisite:* Geology 1a.

**16. Stratigraphy.**—Classification of rock formations; methods and criterions employed in correlation of the successive geologic formations. *II*; (5).

Associate Professor SAVAGE, Dr. VAN TUYL

*Prerequisite:* Geology 9.

17. Principles of Stratigraphy.—Sedimentary rocks and associated deposits; kinds; composition; origin; mode of occurrence; geologic interpretation. *I*; (5).  
Associate Professor SAVAGE

Prerequisite: Geology 16.

[24. Physiographic Interpretations.—Recent earth history; erosion planes and their meaning; drainage modifications; physiographic indications of climatic fluctuations. *I*; (3). Not given, 1915-16.] Dr. RICH

Prerequisite: Geology 23 and 1a.]

25. Physiography of the Mississippi Valley.—Field trips to southern Illinois, eastern Missouri, the Baraboo Ridges of Wisconsin, or the Lexington dome of Kentucky. *II*; (3). Dr. RICH

Prerequisite: Geology 24 or an equivalent, and senior or graduate standing.

[26a-26b. Seminar.—Weekly meetings, reports, and discussions of the current literature of geology, mineralogy, and physiography. Open to all students registered in the department; credit will be given only to those having 10 hours of completed work in geology. *I, II*; (1). Not given, 1915-16.]

Surveying for Students in Geology.—*I*; (3). (See Civil Engineering 33.)

Topographical Surveying for Students in Geology.—*II*; (3). (See Civil Engineering 34.)

#### Courses for Graduates

The first prerequisite for graduate work in geology is the equivalent of the complete undergraduate offerings in that branch of the subject in which specialization is desired. Those specializing in paleontology should have, in addition, at least an elementary knowledge of systematic zoology; those specializing in physical geography should have a knowledge of general physics and chemistry; and those who expect to pursue work in petrography and economic geology should be well grounded in general physics, inorganic chemistry, and the elements of physical chemistry. All graduate students should be able to read the journals printed in German and French.

101. Advanced Crystallography.—Methods used in measuring, projecting, and calculating crystal forms, and determining the physical properties of crystallized bodies. *Three to five times a week; I, II; (1 unit)*.  
Professor BAYLEY

[102. Petrography.—The igneous and fragmental rocks; including identification of types, classification, and relationships. Lectures; laboratory. *Twice a week; I, II; (1 unit)*. Not given, 1915-16.]

103. The Crystalline Schists and Other Metamorphic Rocks.—Processes of metamorphism. Lectures; laboratory. *Twice a week; I, II; (1 unit)*.  
Professor BAYLEY

105. Invertebrate Paleontology.—A group of invertebrate fossils; or the fossils of a special geological system; their geographic distribution and geologic range with reference to stratigraphy. Largely individual work. *One to three times a week; I, II; (1 unit)*. Associate Professor SAVAGE

106. **Areal and Stratigraphic Geology.**—The geology and paleontology of a selected area; report on the geology of the region, based on the data collected in the field. *One to three times a week; I, II; (1 to 2 units).*

Assistant Professor SAVAGE

[107. **Areal and Structural Geology.**—Individual work on some area exhibiting important structural or economic features. *Once a week; I, II; (2 units).* Not given, 1915-16.]

108. **Advanced Economic Geology.**—The processes resulting in the production of ore-bodies. Studies of type mining districts. *Three times a week; I, II; (1 to 2 units).*

Professor BAYLEY

124. **Advanced Physiography.**—Individual work on field problems; study and discussion of the literature of physiography and geomorphology. *One to three times a week; I, II; (1 unit).*

Dr. RICH

## GERMANIC LANGUAGES AND LITERATURE

(Including SCANDINAVIAN)

JULIUS GOEEL, Ph.D., *Professor*

OTTO EDUARD LESSING, Ph.D., *Professor*

GEORGE TOBIAS FLOM, Ph.D., *Associate Professor (Scandinavian)*

NEIL CONWELL BROOKS, Ph.D., *Assistant Professor*

LEONARD BLOOMFIELD, Ph.D., *Assistant Professor (Comparative Philology)*

JOSEPH EUGENE GILLET, Ph.D., *Associate (German and Comparative Literature)*

DAISY LUANA BLAISDELL, A.M., *Instructor*

CHARLES ALLYN WILLIAMS, Ph.D., *Instructor*

ARMIN HAJMAN KOLLER, Ph.D., *Instructor*

ALEXANDER GREEN, Ph.D., *Instructor*

HUGH WILEY PUCKETT, Ph.D., *Instructor*

HEINRICH WALDEMAR NORDMEYER, Ph.D., *Instructor*

EARL KILBURN KLINE, A.M., *Instructor*

GEORGE WASHINGTON SPINDLER, A.M., *Teaching Fellow*

FELIX EMIL HELD, Ph.D., *Associate Professor of German, Miami University (Summer Session)*

CHARLES MARSHALL POOR, Ph.D., *Instructor in the Summer Session*

PHILIP STEPHAN BARTO, Ph.D., *Instructor in the Summer Session*

ADOLF EDUARD ZUCKER, A.M., *Assistant in the Summer Session*

### German

**Major:** 20 hours in German, excluding German 1, 2, and 3, and including at least 6 hours of primarily fourth-year courses.

**Minors:** 20 hours in not more than two subjects chosen from the following list: languages, education, history, philosophy, and psychology, provided that 8 hours must be selected from a language other than German.

### Germanic Languages

**Major:** 20 hours in German and the Scandinavian languages, provided that at least 8 hours must be in German and 8 hours in one Scandinavian language. Only German courses above the second year, and Scandinavian courses exclusive of Scandinavian 6 and 12 will be acceptable.

**Minors:** 20 hours in not more than two subjects chosen from the following list: languages, education, history, philosophy, and psychology.

*A. GERMAN**First-Year Courses*

1. **Elementary Course.**—Grammar and easy reading for beginners. (Two sections are offered in the second semester for students who enter the University in the second semester.) *I*; (4).

Assistant Professor BROOKS, Assistant Professor BLOOMFIELD, Dr. GILLET, Miss BLAISDELL, Dr. KOLLER, Dr. PUCKETT, Dr. NORDMEYER, Mr. KLINE, Mr. SPINDLER

2. **Narrative Prose.**—Grammar and reading. *I*; (4).

Dr. GREEN, Dr. PUCKETT, Dr. NORDMEYER, Mr. SPINDLER

*Prerequisite:* One year of high school German, or German S 1, or German 1 taken in the second semester.

3. **Narrative Prose.**—Grammar and reading. (Continuation of German 1.) *II*; (4).

Assistant Professor BROOKS, Assistant Professor BLOOMFIELD, Dr. GILLET, Dr. KOLLER, Dr. GREEN, Dr. PUCKETT, Dr. NORDMEYER

*Prerequisite:* German 1.

*Second-Year Courses*

4. **Prose Reading.**—Selections from standard prose writers; sight reading; composition. *I* or *II*; (4).

Miss BLAISDELL, Dr. WILLIAMS, Dr. KOLLER, Dr. GREEN, Dr. PUCKETT, Dr. NORDMEYER, Mr. KLINE

*Prerequisite:* German 2, or 3, or two years of high school German.

5. **Narrative and Historical Prose.**—At the option of the instructor one classic in verse may also be read. Composition. *I* or *II*; (4).

Miss BLAISDELL, Dr. WILLIAMS, Dr. KOLLER, Dr. GILLET

*Prerequisite:* German 4, or three years of high school German.

6. **Scientific Prose.**—The rapid reading of works of a general scientific character. (Parallel with 5. Students may not take both 5 and 6 for more than a total of four hours' credit without special permission of department.) *II*; (4).

Dr. PUCKETT, Dr. NORDMEYER, Mr. KLINE

*Prerequisite:* German 4, or three years of high school German.

12. **Newspaper Reading.**—Daily reading of newspapers; oral and written composition; conversation. (Parallel with 5 and 6. Not open to students who have had 5 or 6 or any more advanced course.) *II*; (4). Dr. GREEN

*Prerequisite:* German 4, or three years of high school German, and the consent of the instructor.

*Third-Year Courses*

7. **Modern Fiction.**—(Intended primarily for students who take course 5 in the first semester. Not open to those who have had any course more advanced than 5.) *II*; (3).

Dr. WILLIAMS, Dr. NORDMEYER

*Prerequisite:* German 5, or equivalent.

10. **Introductory Goethe Course.**—Reading of works illustrating different periods in Goethe's development. *Götz von Berlichingen*; *Egmont*; *Iphigenie auf Tauris*; selections from *Dichtung und Wahrheit*. *II*; (3).

Assistant Professor BROOKS, Dr. WILLIAMS

*Prerequisite:* German 14, or 16, or 24, or 28a.

14. **Introductory Schiller Course.**—Works illustrating different periods in Schiller's development: Lyrics and ballads; *Kabale und Liebe*; *Braut von Messina*. I; (3). Professor LESSING, Miss BLAISDELL

*Prerequisite:* German 5, or equivalent.

16. **Elementary Composition and Conversation.**—I or II; (2).

Assistant Professor BLOOMFIELD, Dr. WILLIAMS, Mr. KLINE

*Prerequisite:* German 5, or equivalent.

17. **Intermediate Composition and Conversation.**—I or II; (3).

Assistant Professor BLOOMFIELD, Dr. WILLIAMS, Dr. GREEN

*Prerequisite:* German 16.

24. **Modern Drama.**—Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann, and others. I; (3). Dr. NORDMEYER

*Prerequisite:* German 5, or equivalent.

28a-28b. **German Lyrics.**—The form, development, and different types of the lyric. First semester: The chief lyric poets of the classical period. Second semester: The chief lyric poets of the nineteenth century. (The first semester may be taken separately, but not the second without the first). I, II; (2). Dr. PUCKETT

*Prerequisite:* German 5, or equivalent, and sophomore standing.

#### Primarily Fourth Year Courses

**NOTE.**—For a major in German students are required to take at least six hours of these primarily fourth-year courses; seniors who are preparing to teach German should take German 29.

8. **Schiller.**—The life of Schiller; *Wallenstein* and other selections. II; (3). Professor LESSING

*Prerequisite:* Three years of college German, or equivalent.

11. **German Literature after the Reformation.**—Lectures; recitations; reports on assigned collateral reading. II; (3). Professor LESSING

*Prerequisite:* German 26.

19a-19b. **Goethe's Faust.**—The Faust legend and early Faust books and plays; the genesis of Goethe's *Faust*; reading of both parts. I, II; (2). Professor GOEBEL

25. **Teachers' Course.**—Discussion of methods; examination of textbooks. (Open to seniors and special students who have 20 hours' credit in German.) II; (2). Miss BLAISDELL

*Prerequisite:* German 29a or equivalent; completion of or registration in Education 1 or equivalent.

26. **German Literature to the End of the Reformation.**—Lectures; recitations; reports on assigned reading. I; (3). Professor LESSING

*Prerequisite:* German 10, or 24, or 28a-28b.

[27. **Lessing.**—The life of Lessing; *Nathan der Weise*; *Emilia Galotti*, and other selections. I; (3). Not given, 1915-16. Professor LESSING]

29a-29b. **Advanced Composition.**—Themes on Germany and German life, based on suitable reading, discussed in German. I, II; (3). Dr. KOLLER

*Prerequisite:* German 17.

**30a-30b. Thesis Course.**—(Intended primarily for candidates for honors in German, but open to other seniors.) *I, II; \*1 or 2.*

Professor GOEBEL and other members of the department

**Prerequisite:** Senior standing in College, and three years of college German or equivalent.

**31. Middle High German.**—*I; (2).*

Professor GOEBEL

**Prerequisite:** Senior or graduate standing; three years of college German.

**32. History of German Civilization.**—Readings; lectures; discussions. *I; (3).*

Assistant Professor BROOKS

[**39a-39b. Goethe and Schiller.**—Interpretation of Goethe's poems. Goethe's *Tasso*; Schiller's *Ueber naive und sentimentalische Dichtung*. Not given, 1915-16. *I, II; (2).*

Professor GOEBEL]

### Courses for Graduates

Students desiring to take German as a major should have completed a four years' course of undergraduate study in German, corresponding to the four years' course at this University, and should be familiar with the principal works of the writers of the classical and modern periods of German literature, show a general knowledge of the history of German literature, and be able to follow lectures in the German language.

A reading knowledge of Latin and French is required. It is desirable that candidates for the degree of Ph.D. have some knowledge of Greek. All students are expected to have had a course in German history.

**101. Seminar in Germanic Philology.**—Training in original research; results of special value may be published in the *Journal of English and Germanic Philology*. *Once a week; I, II; (1 unit).*

Professor GOEBEL

**103. Introduction to the Historical Study of the Germanic Languages.**—History of German philology; comparative grammar of the Old Germanic dialects. Lectures; discussions of special topics. *Twice a week; II; (1 unit).*

Professor GOEBEL

[**104. Gothic.**—Grammar and literature. *Twice a week; I; (1 unit).* Not given, 1915-16.]

Professor GOEBEL]

[**105. Old High German.**—Grammar and interpretation of the oldest literary documents. *Three times a week; II; (1 unit).* Not given, 1915-16.]

[**109. Goethe's and Schiller's Philosophy.**—*Twice a week; I, II; (1 unit).* Not given, 1915-16.]

Professor GOEBEL]

**110. Early German Drama.**—German drama to the time of the Reformation; medieval religious drama; Shrovetide plays; beginnings of the humanistic drama. *Twice a week; I; (1 unit).*

Assistant Professor BROOKS

**113. German Literature of the Fifteenth and Sixteenth Centuries.**—Survey of the literature on the background of the general history of the time; Luther and the Reformation; Mastersingers and folksong; the Reformation drama; Hans Sachs; Brant; Fischart; the chap books; the English comedians. *Twice a week; II; (1 unit).*

Assistant Professor BROOKS

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

[115. History of German Literature from Goethe's Death to the Present Time.—*Twice a week; I, II; (1 unit).* Not given, 1915-16.

Professor LESSING]

[116. Medieval German Literature with Reference to Political, Religious, and Social History.—Research. *Twice a week; I; (1 unit).* Not given, 1915-16.

Professor LESSING]

117. History of German Literature during the Eighteenth Century.—*Twice a week; I, II; (1 unit).*

Professor GOEBEL

[118. The German Drama since Schiller.—Research. *Twice a week; I, II; (1 unit).* Not given, 1915-16.]

Professor LESSING]

119. The German Novel.—Research. *Twice a week; I, II; (1 unit).*

Professor LESSING

121. Walther von der Vogelweide.—Lectures and interpretations. *Twice a week; II; (1 unit).*

Professor GOEBEL

125. History of the German Language.—*Three times a week; II; (1 unit).*

Dr. GREEN

#### Summer Session Courses

NOTE: A German House was maintained where more advanced students could obtain board and room, and practise speaking in German.

S 1. Beginners' Course.—(4).

Dr. HELD, Mr. ZUCKER

S 2. Intermediate Course.—(Open to those who have had German 1 the regular university year or its equivalent.) (3).

Dr. BARTO

*Prerequisite:* German 1 or its equivalent.

S 3. Prose Reading.—Narrative prose; sight translation; composition. (3).

Dr. POOR

*Prerequisite:* German 3 or its equivalent.

S 4. Readings from the Classics.—Suderman's *Teja* (2).

Dr. BARTO

*Prerequisite:* German 4 or its equivalent.

S 5. Prose Composition and Conversation.—Translation of ordinary prose into German; idiomatic constructions; free composition and conversation. (2).

Dr. KOLLER

*Prerequisite:* Two years of university German or the equivalent.

S 6. Modern Drama.—Rapid reading of dramas by Kleist, Hebbel, and others. (2).

Dr. KOLLER

*Prerequisite:* Two years of university German or the equivalent.

S 9. Teachers' Course.—The study of German in the high school; methods and chief difficulties in teaching German. Observation work in the beginners' course. (1).

Dr. HELD

*Prerequisite:* Open to those who have taught German and to those who have had three years of university German or its equivalent.

S 10. Goethe's Faust.—(2).

Dr. POOR

*Prerequisite:* Three years of university German or its equivalent.

[\*S 11. History of German Literature Since the Reformation.—(2). Not given, 1915. *To be given, 1916.*

*Prerequisite:* Three years of university German or the equivalent. Open also to graduate students.]

[\*S 14. Elementary Readings in Middle High German.—Not given, 1915.] *To be given, 1916.*

*Prerequisite:* Three years of university German or the equivalent. Open also to graduate students.]

\*S 15. The Classical Period of Middle High German Literature.—Lectures; discussions; reports; reading (not necessarily in the original). (1).

Dr. KOLLER

*Prerequisite:* Three years of university German or the equivalent. Open also to graduate students, subject to the approval of the Executive Faculty.

### B. SCANDINAVIAN

#### Undergraduate Courses Not Open to Freshmen

[1a-1b. Elementary Norwegian.—Grammar, pronunciation, composition, easy reading. I; (3) : II; (2). Not given, 1915-16.

Associate Professor FLOM]

2a-2b. Elementary Swedish.—Grammar; pronunciation; composition; easy reading. I, II; (2).

Associate Professor FLOM

6. Ibsen's Social Dramas.—Lectures; interpretation of four of the social dramas; Ibsen's technics. Archer's translation is used. II; (2).

Associate Professor FLOM

*Prerequisite:* Junior standing.

12. Norse Mythology.—Primitive religion; the religious belief of the Norseman in pre-christian times; interpretation of the principal myths. I; (2).

Associate Professor FLOM

*Prerequisite:* Junior standing.

[14. History of Old Norse Literature.—II; (2). Not given, 1915-16.]

30. Scandinavian Drama.—History of Scandinavian dramatic theory; problems in modern drama. I; (1).

Associate Professor FLOM

40. Germanic Mythology.—Lectures; interpretation of the sources. II; (2).

Associate Professor FLOM

#### Courses for Graduates

Preparation for graduate work in the Scandinavian languages or literature must include a reading knowledge of one of the Scandinavian languages and systematic work in the undergraduate courses in Scandinavian or their equivalent. Any graduate student in language may, however, be admitted to the purely philological courses.

101. Old Norse.—Introduction to the language as a member of the Germanic group. Reading of the *Prose Edda* with selections from the Icelandic sagas. I, II; (1 unit).

Associate Professor FLOM

140. Scandinavian Paleography.—II; (1 unit).

Associate Professor FLOM

**GREEK**

(See CLASSICS.)

**HISTORY**

EVARTS BOUTELL GREENE, Ph.D., *Professor*  
 CLARENCE WALWORTH ALVORD, Ph.D., *Professor*  
 LAURENCE MARCELLUS LARSON, Ph.D., *Professor*  
 ALBERT HOWE LYBYER, Ph.D., *Associate Professor*  
 WILLIAM SPENCE ROBERTSON, Ph.D., *Assistant Professor*  
 PAUL VAN BRUNT JONES, Ph.D., *Associate*  
 THEODORE CALVIN PEASE, Ph.D., *Associate*  
 ARTHUR CHARLES COLE, Ph.D., *Associate*  
 ELIZABETH PARNHAM BRUSH, A.M., *Assistant*  
 JAY EARLL MILLER, A.M., LL.B., *Assistant*

*Cooperating:*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Professor of the Classics*  
 HOWARD VERNON CANTER, Ph.D., *Assistant Professor of the Classics*

CLARENCE EDWIN CARTER, Ph.D., *Professor of History in Miami University  
(Summer Session)*

ORREN CHALMER HORMELL, A.M., *Professor of History in Bowdoin College,  
(Summer Session)*

**Major:** 20 hours, excluding History 1a and 2a, and including (a) either History 1b or 2b; (b) six hours selected from courses for advanced undergraduates and graduates; and (c) any other courses offered in the department.

**Minors:** 20 hours, including (a) either Economics 1 or Political Science 1 and 3; and (b) one or two of the following subjects: economics, political science, law, sociology, the history of any literature, history of education, philosophy, and physiography. Courses in any foreign language may be accepted in satisfaction of this requirement, if the student can show his ability to read ordinary historical prose in that language.

**Courses for Undergraduates**

**1a-1b. Continental European History.**—Europe from the fourth century to the present time. (The work of neither semester may be taken separately without special permission.) *I, II; (4).*

Associate Professor LYBYER, Dr. JONES, and assistants

**2a-2b. English History.**—First semester: Political history of England to 1603; the larger social, economic, and religious movements. Second semester: The modern history of England; colonial and imperial development. *I, II; (3).*

Professor LARSON, Dr. PEASE, and assistants

**3a-3b. History of the United States.**—First semester: The colonial era; the revolution; genesis of the federal constitution. Second semester: The United States under the constitution. (Either semester may be taken separately). *I, II; (3).* Professor GREENE, Assistant Professor ROBERTSON, Dr. COLE

*Prerequisite:* One year of college work.

**5. History of Greece.—I; (3).** (See Greek 20.) Professor OLDFATHER

*Prerequisite:* One college course in history or the classics, and sophomore standing.

**6. History of Rome.—II; (3). (See Latin 19.)**

Assistant Professor CANTER

*Prerequisite:* One college course in history or the classics. Not open to freshmen.

[**17. The History of Illinois.**—The political, economic, and social development of a commonwealth in the Middle West, considered in its relation to the course of American history. *II; (2).* Not given, 1915-16.]

*Prerequisite:* History 3a-3b or junior standing in any college of the University.]

**18. The Teaching of History.**—Preparation of students for the teaching of history in secondary schools. *I; (2).* Dr. COLE

*Prerequisite:* History 1a-1b, 3a-3b, or their equivalent; senior standing.

**28a-28b. Thesis.**—Special training in investigation for candidates for honors and for other seniors. *I, II; (2).*

Professor GREENE and other members of the department

**Courses for Undergraduates and Graduates**

(Open to seniors and to juniors of high standing. The ability to use French and German is desirable.)

**4a-4b. The Constitutional History of England.**—First semester: Institutional origins. Second semester: Modern constitutional practise. (Important for students specializing in history, political science, or law). *I, II; (3).*

Professor LARSON

*Prerequisite:* One year of college history.

**7. The Revolutionary and Napoleonic Era in Europe.—I; (3).**

Associate Professor LYBYER

*Prerequisite:* One year of college work in history or political science.

**8. Medieval Civilization.**—The religious, economic, and intellectual development of medieval society. *I; (3).* Professor LARSON

*Prerequisite:* History 1a-1b.

**9a-9b. The Renaissance and the Reformation.**—The transition from medieval to modern ideals. *I, II; (3).* Dr. JONES

*Prerequisite:* History 1a-1b.

**[10. The Development of American Society in the Eighteenth Century.—II; (4).** Not given, 1915-16.]

*Prerequisite:* History 3a-3b.]

[**12. History of Germany.—I, II; (2).** Not given, 1915-16.]

**14a-14b. American Constitutional History.**—First semester: Political institutions at the close of the colonial era; early state constitution and the confederation; the framing and ratification of the federal constitution. Second semester: The development of the written and unwritten constitution since 1789. (Either semester may be taken separately.) *I, II; (3).*

Professor GREENE, Assistant Professor ROBERTSON

*Prerequisite:* History 3a-3b, or Political Science 1 and 3.

**15. The Civil War and Reconstruction in the United States.—II; (3).** Dr. COLE

*Prerequisite:* History 3a-3b.

**16a-16b. The Exploration and Colonization of the West.**—First semester: The Mississippi Valley from the earliest European explorations to the close of the war of 1812. Second semester: The Mississippi Valley since 1815, and the progress of western expansion to the Pacific. (Either semester may be taken separately.) *I, II; (2).*

Professor ALVORD

*Prerequisite:* History 3a-3b.

**[19. France in the Feudal and Later Middle Ages with Special Reference to Institutions.]**—A reading knowledge of French is required. This course may be combined with History 8. *I; (3).* Not given, 1915-16.

Dr. JONES

*Prerequisite:* History 1a-1b.]

**[20a. Europe in the Nineteenth Century from 1815 to 1871.—*I;* (3).** Not given, 1915-16.

Associate Professor LYBYER

*Prerequisite:* One year of college work in history or political science.

**20b. Europe Since 1871.—*II; (3).*** Associate Professor LYBYER

*Prerequisite:* One year of college work in history or political science.

**21. The United States since the Reconstruction.**—Historical introduction to contemporary American politics. *I; (3).*

Assistant Professor ROBERTSON

*Prerequisite:* History 3a-3b.

**26. The Latin-American Colonies.**—The political, economic, social, and intellectual life of Spain during the period of discovery; the exploration, settlement, and civilization of Spanish America and the Philippines; the exploration and colonization of Brazil. *I; (3).*

Assistant Professor ROBERTSON

*Prerequisite:* History 1a-1b or 3a-3b.

**27. Latin-America from the Wars of Independence to the Present Time.**—The leading Latin-American states; political parties; existing governments; relations with Europe and the United States; the old regime in Texas, Mexico, and California. *II; (3).*

Assistant Professor ROBERTSON

*Prerequisite:* History 3a-3b.

**29. The Far East.**—The contact of Western nations with the Far East from the sixteenth century to the present time. *II; (2).*

Professor GREENE

*Prerequisite:* One year of college history, economics, or political science, and senior standing.

#### Courses for Graduates

Graduate work in history presupposes two years of college work in this subject, or sixteen semester hours, which should include courses in European and American history corresponding roughly to History 1a-1b and 3a-3b in this University. Linguistic preparation, especially in French and German, is important. For medieval history some knowledge of Latin is essential, and Spanish is useful for certain fields of American history.

Advanced courses in history at the University of Illinois are of three kinds: (1) For information and guidance in general reading. (2) Instruction in methodology, historiography, and bibliography. A part of this work (in course 103) is required of all graduate students in history during their first year.

(3) Seminar courses of the study of special fields with a view to training in the methods of historical criticism and research.

**Illinois Survey.**—Students have an opportunity to pursue research in western history in connection with the Illinois Survey, an organization for the purpose of carrying on systematic studies in the history of Illinois.

Attention is also called to the fact that the University of Illinois has for some time co-operated with the Illinois State Historical Society and the Trustees of the State Historical Library, in the gathering and editing of archive material. As a result instructors and graduate students in the department have contributed from time to time to the publications of these state organizations, and have been given useful training in the study of manuscript as well as printed material.

**The Historical Club,** consisting of graduate students in the department, which meets twice a month, gives an opportunity for informal discussion of historical topics.

**101. Seminar in American History.**—Bibliography; solution of typical problems; reports on the progress of investigations. *Two hours, once a week; I, II; 1 to 2 units.*

In connection with this course, direction in research is offered as follows:

A. American history before 1789. Professor GREENE

B. American history since 1789. Assistant Professor ROBERTSON, Dr. COLE

C. The history of the West. Professor ALVORD

D. American church history. Professor GREENE

E. Latin-American history. Assistant Professor ROBERTSON

**102. Studies in English History.**—Selected problems from the history of England in the later middle ages and the early modern period. *Twice a week; I, II; (1 unit).* Professor LARSON

**103. Historiography and Historical Method.**—Selected problems; studies of representative historians; readings in French and German historical literature. Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere. *Twice a week; I, II; (½ unit).* Associate Professor LYBYER and others

**104. Research in European History.**—*I, II; (1 to 2 units).*

Direction is offered by members of the department as follows:

A. Medieval history. Professor LARSON

B. Modern history of Continental Europe. Associate Professor LYBYER

C. English history. Professor LARSON

D. Renaissance and Reformation. Dr. JONES

*I, II; (1 to 2 units).*

**105. Studies in the History of the West.**—Subject for 1915-16: The West in American Diplomatic History, 1775-1814. *Once a week, I, II; (1 unit).* Professor ALVORD

**111. Spanish-American Relations.**—The relations of the Latin-American States with Europe and the United States. An intensive study of such topics as the Monroe Doctrine, and the development of international trade. *Once a week; I, II; (½ to 1 unit).* Assistant Professor ROBERTSON

**112. Studies in American Religious History.**—Questions of church and state. *Once or twice a week, I, II; (1 unit).* Professor GREENE

### **Summer Session Courses**

- S 1a. European History, 378-1300.—For description see History 1.  
(2½). Associate Professor LYBYER

- S 3b. American History, 1783-1861.—For description see History 3b.  
 $(2\frac{1}{2})$ . Professor CARTER

## Courses for Graduates and Undergraduates

- \*S 16. The History of the West, 1750-1850.—For description see History 16a. (2½). Professor CARTER

*Prerequisite:* At least one college course in American history, and junior standing.

\*S 20b. European Political History, 1870-1914.—International relations and the events leading up to the great war. (2). Associate Professor LYBYER

*Prerequisite:* At least one college course in European history, and junior standing.

\*S 15b. The United States During the Period of Reconstruction.—An intensive study is made of: (a) the constitutional problems involved; (b) the political status of the negro and the factors resulting in his enfranchisement. (2½). Professor HORMELL

*Prerequisite:* One college course in American history, and junior standing.

## **Course for Graduates**

- \*S 101. Investigation of Selected Topics.—Personal conferences with graduate students. Associate Professor LYBYER

## HORTICULTURE

- JOSEPH CULLEN BLAIR, M.S., Professor, Horticulture  
†JOHN WILLIAM LLOYD, M.S., Professor, Olericulture  
CHARLES SPENCER CRANDALL, M.S., Professor, Pomology  
CHARLES MULFORD ROBINSON, A.M., Professor, Civic Design  
HERMAN BERNARD DORNER, M.S., Assistant Professor, Floriculture  
BETHEL STEWART PICKETT, M.S., Assistant Professor, Pomology  
WILHELM MILLER, Ph.D., Assistant Professor, Landscape Horticulture  
RALPH RODNEY ROOT, M.L.A., Assistant Professor, Landscape Gardening  
ERNEST WINFIELD BAILEY, M.S., Assistant Professor, Pomology  
OSCAR S WATKINS, B.S., Associate, Horticultural Chemistry  
CHARLES ELMER DURST, M.S., Associate, Olericulture  
SIMEON JAMES BOLE, A.M., Associate, Pomology  
JOHN JOSEPH GARDNER, M.S., Associate, Pomology  
IRA DENT ALLISON, B.S., Associate, Horticulture  
FRANK A CUSHING SMITH, M.L.A., Associate, Landscape Design  
FREDERICK NOBEL EVANS, M.L.A., Associate, Landscape Gardening  
ALFRED JOSEPH GUNDERSON, B.S., Instructor, Pomology  
FRANK LOTAN VENNING, Instructor, Landscape Design  
WILLIAM SANFORD BROCK, A.B., B.S., Instructor, Pomology  
WILLIAM KING PALMER, B.S., Instructor, Floriculture  
ARTHUR SAMUEL COLBY, M.S., Assistant, Pomology

<sup>†</sup>Absent on leave.

HOWARD DEXTER BROWN, B.S., *Assistant, Olericulture*

AUGUST GEORGE HECHT, B.S., *Assistant, Floriculture*

DUANE TAYLOR ENGLIS, A.M., *Assistant, Floricultural Chemistry*

LEON DEMING TILTON, B.S., *Assistant, Landscape Extension*

1a. **Elements of Horticulture.**—Fruit growing, vegetable gardening, and ornamental planting, with special reference to the farm home. Recitations; practical exercises. (Required of all freshmen in the general course in Agriculture.) *I*; (2).

Assistant Professor PICKETT, Mr. BOLE, Mr. GARDNER, Mr. BROCK, Mr. COLBY

1b. **Elements of Horticulture.**—Continuation of 1a. (Required of all freshmen in the general curriculum in Agriculture.) *II*; (2).

Assistant Professor PICKETT, Mr. BOLE, Mr. GARDNER, Mr. BROCK, Mr. COLBY

2. **Small Fruits and Grapes.**—The strawberry, raspberry, blackberry, dewberry, currant, gooseberry, grape. History; extent of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting; marketing. Lectures; reference readings. *II*; (2).

Mr. BOLE

*Prerequisite:* Horticulture 1a and 1b or their equivalents, Horticulture 5.

3. **Vegetable Gardening.**—The production and marketing of vegetables. Lectures; reference readings; practical exercises. *II*; (5).

Mr. DURST, Mr. BROWN

*Prerequisite:* Horticulture 1a and 1b or their equivalents.

4. **Plant Houses.**—Construction, cost, and maintenance; heating; ventilating. *I*; (4).

Assistant Professor DORNER

5. **Plant Propagation.**—Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. *II*; (5).

Assistant Professor DORNER, Mr. HECHT

6. **Nursery Methods.**—Lectures; reference readings. *II*; (2).

Assistant Professor BAILEY, Mr. ALLISON

*Prerequisite:* Horticulture 5; Entomology 4.

7. **Spraying.**—Materials, appliances, and methods employed in combating insects and fungous diseases. Lectures; reference readings; laboratory; field work. *II*; (3).

Mr. WATKINS

*Prerequisite:* Horticulture 1a and 1b or their equivalents; Chemistry 1; Entomology 4.

8. **Orcharding.**—Pomaceous, drupaceous, and nut fruits; management of large commercial orchards; harvesting; grading; packing; storing; marketing. *I*; (5).

Professor CRANDALL, Assistant Professor BAILEY

*Prerequisite:* Horticulture 1a and 1b or their equivalent, 5; Botany 1; Entomology 4.

[9. **Forestry.**—Forest trees; uses; distribution; artificial production; relations of forest and climate; forestry legislation and economy. *II*; (2). Not given, 1915-16.

*Prerequisite:* Botany 1, or an equivalent.]

10a. **Rural Improvement.**—Landscape gardening in the open country and its relation to rural conditions, with special reference to the farm group. Lectures; reference reading; reports; occasional field trips. *I*; (2).

Assistant Professor Root

**10b. Town Improvement.**—The development of the town as an organism and the improvement of small communities, with special reference to the home grounds. Lectures; reference reading; reports; occasional field trips. *II*; (2). Professor ROBINSON, Mr. EVANS

**11. Study of Cultivated Plants.**—Economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. *I*; (2).

Professor BLAIR, Professor CRANDALL

*Prerequisite:* Botany 4a.

**12. Evolution of Horticultural Plants.**—History, botanical classification, and geographical distribution of cultivated plants; modification under culture; theoretical causes and observed factors that influence variation, particularly food supply, climate, and cross-fertilization. *I*; (3). Professor CRANDALL

*Prerequisite:* Two years of university work, including Horticulture 8 and Botany 4a.

**15a. Principles of Plant Growing.**—Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; practical greenhouse work. *II*; (5). Assistant Professor DORNER, Mr. HECHT

*Prerequisite:* Horticulture 5; Botany 1.

**15b. Commercial Crops.**—Greenhouse plants and cut flowers for wholesale and retail markets; care and marketing. Lectures; greenhouse work. *I*; (5).

Mr. PALMER

*Prerequisite:* Horticulture 15a.

**17. Commercial Fruit Culture.**—Practical work in houses and fruit plantations; reference readings; seminar. (For students specializing in horticulture.) *I*; (5). Professor CRANDALL, Assistant Professor BAILEY

*Prerequisite:* Horticulture 8.

**18. Experimental Horticulture.**—Methods and difficulties in horticultural investigations; the planning of experiments; recording and interpreting results. (For advanced students preparing for experiment-station work.) *II*; (5). Professor BLAIR, Assistant Professor PICKETT, Mr. WATKINS

*Prerequisite:* Twenty hours' work in horticulture.

**19. Amateur Floriculture.**—Window gardening; flowers on the home grounds; containers; potting soils; fertilizers; flower beds; plants for window and garden. *I*; (3). Mr. HECHT

**21a-21b. Landscape Design (First Course).**—Composition; lectures on form and arrangement; small home grounds and gardens of simple form; types of drafting and presentation in office practise. Nine hours drafting a week. *I, II*; (4). Mr. SMITH, Mr. EVANS, Mr. VENNING

*Prerequisite:* Architecture 32.

**22. Special Investigation and Thesis.**—*I* or *II*; \*(5-10).

**23a-23b. Landscape Design (Second Course).**—Topographic plans for urban home grounds and country estates, small parks and playgrounds. Lectures; eleven hours drafting a week. *I, II*; (4). Mr. EVANS, Mr. VENNING

*Prerequisite:* Horticulture 21b.

\*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**24a. Trees and Shrubs.**—Plant material important to landscape gardening; landscape value; adaptability to the soil and situation; use in design. Two lectures a week; one field trip. *II*; (3). Assistant Professor Root

*Prerequisite:* Botany 1, 4d.

**24b. Trees and Shrubs.**—(Continuation of 24a.) Lectures; reference reading; field trips. *I*; (3). Assistant Professor Root

*Prerequisite:* Horticulture 24a.

**25a. Landscape Design (Advanced Course).**—Large country estates; country parks; golf courses; drafting; field trips; assigned reading; reports; occasional lectures; 15 hours drafting a week. *I*; (5)\*, or more by special arrangement with the head of the division.

Assistant Professor Root, Mr. EVANS, Mr. VENNING

*Prerequisite:* Horticulture 23b.

**25b. Landscape Design.**—(Continuation of 25a.) Cemeteries; real-estate subdivisions. Drafting; field trips; assigned readings; reports; occasional lectures; 15 hours drafting a week. *II*; (5)\*, or more by special arrangement with the head of the division. Professor ROBINSON, Mr. EVANS, Mr. VENNING

*Prerequisite:* Horticulture 25a, 26b.

**26a. Planting Design.**—Plans, based on the design problems in course 23a; lectures; conferences; library research; drafting. Eight hours drafting a week. *II*; (3). Assistant Professor Root

*Prerequisite:* Horticulture 23a, 24b.

**26b. Planting Design.**—Plans, based on the design problems in course 25; lectures; conferences; library research; drafting. Eight hours drafting a week. *I*; (3). Assistant Professor Root

*Prerequisite:* Horticulture 26a.

**27a. Landscape Construction.**—Relation of topographic maps to landscape design; calculation of cut and fill; quantities of material; grading plans and working drawings. One lecture and six hours drafting a week. *I*; (3).

*Prerequisite:* Civil Engineering 32; Horticulture 21b. Mr. SMITH

**27b. Landscape Construction.**—Construction drawings; drainage; water supply and sewage disposal; specifications and reports; engineering drawings based on the problems in course 23a. Two lectures and four hours drafting a week. *II*; (3). Mr. SMITH

*Prerequisite:* Horticulture 27a.

**28. Exotics.**—Temporary decorative plants used in landscape gardening. Lectures; planting plans; field trips. *II*; (1). Assistant Professor Root

*Prerequisite:* Horticulture 25a, 26b.

**29a. Garden Design.**—The garden in its relation to the house; architectural harmony; utilization, topographic conditions, and planting for architectural or horticultural emphasis. Eight hours drafting a week; one lecture. *I*; (3). Assistant Professor Root, Mr. VENNING

*Prerequisite:* Architecture 32 or Horticulture 23a.

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

29b. **Garden Design.**—The designing of period gardens and their relation to garden design. Eight hours drafting a week; one lecture. *II*; (3).

Assistant Professor Root, Mr. VENNING

*Prerequisite:* Architecture 34 or Horticulture 25a.

30. **Decorative and Bedding Plants.**—Tropical and sub-tropical plants used in decorative work in the conservatory; tender plants used in out-door bedding. Lectures; practical greenhouse work. *II*; (5). Mr. HECHT

*Prerequisite:* Horticulture 15a.

31. **Garden Flowers.**—The propagation and growing of annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. *I*; (3). Assistant Professor DORNER

*Prerequisite:* Horticulture 5; Botany 1.

32. **Floral Decoration.**—Cut flowers and plants in decorative work; arrangement of flowers in baskets, designs, and bouquets; table decoration; house decoration. (For floriculture students.) *II*; (4).

Assistant Professor DORNER

[33. **Systematic Pomology.**—Description, nomenclature, and classification of native and sub-tropical fruits; critical descriptions and identification with special reference to relationships and classifications of varieties; judging and displaying fruits. *I*; (2). Not given, 1915-16.

*Prerequisite:* Horticulture 8.]

34. **Vegetables Under Glass.**—History and development of vegetable forcing; location and types of greenhouses for vegetable crops; soils and fertilizers; ventilation, watering, and treatment of insects and diseases, including fumigation and soil sterilization; crops used for forcing; marketing. Lectures; reference readings; laboratory practise in planting and growing crops. *I*; (3).

Mr. DURST, Mr. BROWN

*Prerequisite:* Horticulture 3.

35. **Private Conservatory Work.**—Types of plants for large conservatories; arrangement; care. *II*; (3). Assistant Professor DORNER

*Prerequisite:* Horticulture 15a, 4.

36. **History of Landscape Gardening.**—Lectures; reference readings; library sketches; reports. *II*; (2). Assistant Professor Root

37a. **Civic Design.**—Town remodeling; remedial problems in town planning. Lectures; field trips; reference reading; reports; drafting. *I*; (3). Professor ROBINSON, Mr. EVANS

*Prerequisite:* Horticulture 41.

37b. **Civic Design.**—Town extension; preventive and preservative aspects of town planning. Lectures; reference reading; drafting; textbook. *II*; (3). Professor ROBINSON

*Prerequisite:* Horticulture 37a.

**38. Office Practise in Landscape Gardening.**—Lectures; office work; reports. Practise in carrying out landscape plans in the field. *I or II; (2).* Assistant Professor Root

*Prerequisite:* Horticulture 27a, 23b.

**39a-39b. Special Lectures.**—Lectures by members of the faculty and invited lecturers, on the working out of problems in landscape gardening. Required of students taking the professional curriculum in landscape gardening. Certain inspection trips will be required of the class. The expense of these trips will be about two dollars. One lecture a week with written reports. *I, II; (1).* Assistant Professor Root

*Prerequisite:* Permission of the instructor in charge.

**40a. Trees and Shrubs (Advanced Course).**—Laboratory, field, and herbarium work; assigned reading; seminar conferences. *I; (3).* Assistant Professor Root

*Prerequisite:* Horticulture 24b.

**40b. Trees and Shrubs (Advanced Course).**—Special problems in the classification and arrangement of plants as to their leaf color. *II; (3).* Assistant Professor Root, Mr. VENNING

*Prerequisite:* Horticulture 21b.

**41. Civic Design (Elementary Course).**—Lectures; reference reading; reports. *II; (1).* Professor ROBINSON

*Prerequisite:* Horticulture 23a.

**42. Landscape Design (Elementary Course).**—Application of landscape design to private grounds. One lecture; reference reading; reports; six hours drafting a week. *II; (3).* Mr. SMITH

#### Courses for Graduates

At least two years of collegiate work in horticulture and allied subjects and specific preparation for the chosen topics are required for entrance on major work in this department.

**102. Pomology.**—Adaptation, propagation, cultivation, or pruning of small fruits. Conferences. *II; ( $\frac{1}{2}$  to 1 unit).* Professor CRANDALL

**103. Olericulture.**—Structure, cultural requirements, and improvement of vegetables. Conferences. *I, II; (1 to 2 units; a student working part time and extending his study for the master's degree over two years may register for  $\frac{1}{2}$  to 1 unit for each of the four semesters.)* Professor BLAIR, Professor LLOYD

**108. Pomology.**—The relationship, adaptation, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of orchard fruits. Conferences. *I, II; (1 to 2 units; a student working part time and extending his study for the master's degree over two years may register for  $\frac{1}{2}$  to 1 unit for each of the four semesters.)* Professor BLAIR, Professor CRANDALL

**115. Horticulture.**—The horticultural status of flowering plants; or special problems in the culture of greenhouse plants.

Assistant Professor DORNER

## HOUSEHOLD SCIENCE

ISABEL BEVIER, Ph.M., *Professor and Director*

RUTH WHEELER, Ph.D., *Assistant Professor*

LURENE SEYMOUR, Ph.B., B.S., *Associate*

CORA EMELINE GRAY, M.S., *Associate*

MAUD EDNA PARSONS, A.B., *Associate*

FLORENCE HARRISON, B.S., *Associate*

GEORGIA ELIZABETH FLEMING, B.S., *Instructor*

GRACE ESTHER STEVENS, A.B., *Instructor*

ANNA WALLER WILLIAMS, A.M., *Instructor*

GRETA GRAY, A.M., *Instructor*

MAMIE BUNCH, A.B., *State Leader in Home Economics Demonstration*

MARGARET BEAUMONT STANTON, A.M., *Instructor*

LEONA HOPE, *Instructor*

OLIVE B PERCIVAL, B.S., *Assistant, Extension*

FANNIE MARIA BROOKS, A.B., *Assistant, Extension*

GRACE LINDER, A.B., *Assistant, Extension*

FREDERICK JACKSON BLACKBURN, B.S., *Assistant, Extension*

**Major:** 20 hours from any courses offered by the department, excluding Household Science 2 and 7, and including Household Science 5, 6, 12, and 3.

**Minors:** 20 hours from either (a) chemistry, bacteriology, and physiology; or (b) economics (a minimum of eight hours), along with one or two of the following subjects: art and design, education, history, psychology, and sociology.

## Food

1. **Selection and Preparation of Food.**—The nature and uses of foods, their chemical composition, and the changes effected by heat, cold, or fermentation; principles of selection, illustrated by marketing expeditions; processes of manufacture; combinations of different kinds. *II*; (3).

Miss STEVENS, Miss STANTON, Miss GRETA GRAY

*Prerequisite:* Entrance credit in physics; Chemistry 1.

6. **Economic Uses of Food.**—(Continuation of 1.) The economics of the food question; uses and applications of preservatives. *I*; (3).

Miss STEVENS, Miss STANTON, Miss GRETA GRAY

*Prerequisite:* Household Science 1.

14. **Problems in the Preparation and Service of Food.**—(Continuation of courses 1 and 6.) Preparation and service of meals for a family; cost and dietetic values; the preparation of food in quantities; individual problems in the manipulation of food materials. *I* or *II*; (3).

Miss CORA GRAY, Miss WILLIAMS

*Open to:* (a) those who are preparing for lunch-room management; (b) those who are preparing for extension work; (c) in special cases, those who have completed the major in household science.

*Prerequisite:* Household Science 1, 6; Chemistry 1, 2, 3 or 2a; junior standing, and the consent of the instructor.

5. Dietetics.—Diet; the relation of food to health; influence of age, sex, and occupation on diet; the construction of dietaries; dietetic treatment of certain diseases. Laboratory. *I or II*; (3).

Assistant Professor WHEELER

*Prerequisite:* Household Science 1, 6; Physiology 4; Chemistry 1, 2, 3 or 2a.

4. Food and Nutrition.—The physiological, chemical, and bacteriological problems of food and nutrition. Individual investigation. *I*; (5).

Assistant Professor WHEELER

*Prerequisite:* Bacteriology 5; Chemistry 1, 2, 3 or 2a, 13a, 9, 9c, five hours in botany or zoology; Household Science 1, 5, 6.

18. Lunch-Room Management.—Organization and equipment of lunch rooms. Laboratory practise. (The class takes a trip to Chicago to inspect various types of lunch rooms. The cost of the trip is about \$15.00.) *I or II*; (5).

Miss PARSONS

*Prerequisite:* Household Science 1, 5, 6, 14; Economics 1 or 2, and senior standing.

[20. Infant Nutrition.—Lectures; readings; discussions. *I*; (2). Not given, 1915-16.]

Assistant Professor WHEELER

*Prerequisite:* Household Science 5, and senior standing.]

### The House

2. Home Architecture and Sanitation.—Situation, surroundings, and construction of the house; hygiene, heating, lighting, ventilating, water supply, and drainage. House planning and sanitary plumbing, fixtures, and internal drainage; making skeleton plans. *I*; (2).

Professor BEVIER, Miss FLEMING, Miss GRETA GRAY, Assistant Professor ASH, and others

NOTE: Only one credit for seniors.

3. Elementary Home Decoration.—Evolution of the house and home; homes of primitive peoples; theory of color and its application in home decoration; furnishings from a sanitary and artistic standpoint. *II*; (2).

Professor BEVIER, Miss FLEMING, Miss GRETA GRAY, Miss HOPE

*Prerequisite:* Art and Design 12; Household Science 2; junior standing.

10. Household Management.—Expenditure of the income; organization of the household; care of the house and family; home nursing; domestic service problem. Laboratory work in practise apartment. *II*; (2).

Miss CORA GRAY, Miss WILLIAMS

*Prerequisite:* Household Science 1, 2, 6; Economics 1 or 2; junior standing.

### Textiles and Clothing

7. Textiles.—Development of the textile industry from primitive times to the present; the important fibers and materials made from them; movements for bettering textile conditions; practise in weaving. *I or II*; (2).

Miss SEYMOUR

NOTE: Only one credit for seniors.

12. **Clothing.**—Dress from the historic, hygienic, and economic standpoint. Making of garments from individual designs. *II*; (3).

Miss HOPE, Miss FLEMING

*Prerequisite:* Household Science 7, 19; 30 hours of university work. Proof by examination or otherwise of the ability to sew.

17. **Problems in the Study of Textiles.**—Microscopic and chemical analysis of fabrics; dyeing; special problems. *II*; (3). Miss SEYMOUR

*Prerequisite:* Household Science 7, 12; Chemistry 1, 2a.

19. **Dress Design.**—Effect of space division and line on proportion of figure; dresses for definite occasions. *I*; (2). Miss HOPE

*Prerequisite:* Household Science 7, Art and Design 1, 12; thirty hours of university work.

#### Courses for Teachers

11. **\*Teachers' Course.**—The best methods of presenting the work, and its correlation with other subjects. Practise in planning and presenting of courses. (Two inspection trips are made to other schools, one in April and one in May. The total cost does not exceed \$5.00.) *II*; (3).

Professor BEVIER, Miss SEYMOUR, Miss HARRISON

*Prerequisite:* Household Science 1, 2, 3, 5, 6, 7, 12, and 13; laboratory work in sewing, Saturday morning, first semester; senior standing.

13. **History of Home Economics.**—Origin and development of home economics; the work in different types of institutions; the planning of courses for these types. *I*; (2). Professor BEVIER, Miss HARRISON, Miss SEYMOUR

*Prerequisite:* Senior standing.

9. **Individual Problems.**—Different phases of home economics. *II*; (3). Professor BEVIER

*Prerequisite:* Senior standing.

#### Economics of the Family

15. **Economics of the Family Group.**—The economic relations of the family as a whole and as individuals. Retail market; sources of income, and social and industrial conditions affecting them; child labor; economic position of women. *I*; (3).

Miss STANTON

*Prerequisite:* Household Science 3, 6, 10, 12.

#### Courses for Graduates

Students who wish to do graduate work in household science should specialize in either the scientific or the economic phase of the subject. In either case they must offer twenty credit hours of household science as given in the University of Illinois, or its equivalent, with a minimum of two years of chemistry, including organic chemistry, a year of biological science, and a year of either economics or sociology.

NOTE: Courses 4, 5, and 20 may be taken for graduate credit.

101. **Home Economics.**—Origin and development; industrial, educational, and sociological aspects. *Twice a week; I, II; (1 unit)*. Professor BEVIER

102. **Special Investigations.**—The application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in preparation of food; problems in nutrition. *Twice a week; I, II; (2 units)*.

Professor BEVIER, Assistant Professor WHEELER

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\*Millinery for those taking Household Science 11 is given from 10 to 12 o'clock on Saturday the second semester, and sewing from 10 to 12 o'clock the first semester.

- 103. Seminar.**—Recent advances in nutrition. *Once a week; II; (½ unit).*  
Assistant Professor WHEELER

### Summer Session Courses

**Foods.**—The work offered in foods is of two grades: (a) That designed for those who have studied or taught household science and wish to prepare themselves to teach it in high schools; (b) Advanced work in nutrition.

**S 1. Foods.**—Sources and cost of foods; the cooking of various types; planning and service of meals. (1½). Miss STANTON

**S 2. Foods.**—Relative nutritive value of foods; dietetic values: the relation of foods to the human body. (1½). Miss STANTON

**Prerequisite:** A year's work of college rank with foods; a year of general chemistry; a course in general physiology.

**S 4. Clothing.**—Textiles used in clothing; cost and care of clothing; use of patterns; drafting; making of undergarments, a shirtwaist, and a cotton dress. Lecture; discussion; laboratory. (2). Miss HOPE and Miss LINDER

**S 5. Millinery.**—Designing and construction of wire, buckram, and cape net frames; covering with velvet and straw. Demonstrations; laboratory. (½). Miss LINDER

**S 6a. Costume Design.**—Appropriate dress; proportion of parts; outline of figure and color harmony. Lecture; laboratory. (½). Miss HOPE

**S 6b. House Decoration and Furnishing.**—History of furniture; perspective drawing of rooms; color schemes; weaving. Lecture; laboratory. (½). Miss HOPE

### ITALIAN

(See ROMANCE LANGUAGES AND LITERATURE.)

### JOURNALISM

(See RHETORIC 12, 15, 17, 19, under THE ENGLISH LANGUAGE AND LITERATURE.)

### LANDSCAPE GARDENING

(See HORTICULTURE.)

### LATIN

(See CLASSICS.)

### LAW

OLIVER ALBERT HARKER, A.M., LL.D., *Professor, Dean*

FREDERICK GREEN, A.M., LL.B., *Professor*

EDWARD HARRIS DECKER, A.B., LL.B., *Professor*

JOHN NORTON POMEROY, A.M., LL.B., *Professor*

CHESTER GARFIELD VERNIER, A.B., J.D., *Professor*

WILLIAM GREEN HALE, B.S., LL.B., *Professor, Secretary*

CHARLES ERNEST CARPENTER, A.M., LL.B., *Assistant Professor*

### First Year Courses

**NOTE.**—In addition to the regular courses, first year students are required to attend one quiz-hour each week.

**1a-1b. Contracts.**—Williston's *Cases on Contracts*, Vols. I and II.  
Selected Illinois Cases. I; (4); II; (3). Professor DECKER

2a-2b. *Torts*.—Ames and Smith's *Cases on Torts*. I, II; (3).

Professor HALE

37. *Introduction to the Study of Law*.—I; (1). Professor DECKER

3. *Real Property*.—Gray's *Cases on Property*, Vols. I and II (2d Edition). II; (3). Assistant Professor CARPENTER

[4. *Common Law Pleading*.—II; (3). Not given, 1915-16.]

5. *Criminal Law*.—Beale's *Cases on Criminal Law*, (2nd edition). I; (4). Professor VERNIER

6. *Personal Property*.—Gray's *Cases on Property*, Vol. I, (2nd edition). I; (2). Professor GREEN

7. *Domestic Relations*.—Woodruff's *Cases on Domestic Relations*, (2nd edition). II; (2). Professor VERNIER

11a. *Agency*.—Wambaugh's *Cases on Agency*. II; (3).

Assistant Professor CARPENTER

#### Second or Third Year Courses

8. *Evidence*.—Thayer's *Cases on Evidence*, (2nd edition). II; (4).

Professor HALE

9. *Sales*.—Williston's *Cases on Sales*, (2nd edition). I; (3).

Professor HALE

10. *Real Property*.—Gray's *Cases on Property*, Vols. II and III, (2nd edition). I; (4). Assistant Professor CARPENTER

11b. *Agency*.—Wambaugh's *Cases on Agency*. I; (3).

Assistant Professor CARPENTER

12a-12b. *Equity*.—Ames' *Cases on Equity*. I; (3); II; (2).

Professor POMEROY

13. *Damages*.—Beale's *Cases on Damages*, (2nd edition). I; (2).

Professor DECKER

14. *Carriers*.—Green's *Cases on Carriers*. II; (3). Professor GREEN

15. *Bills and Notes*.—Huffcut's *Cases on Bills and Notes*, (Colson's edition). I; (4). Professor VERNIER

16. *Trusts*.—Ames' *Cases on Trusts*, (2nd edition). II; (3).

Professor VERNIER

18. *Wills*.—Gray's *Cases on Property*, Vol. IV, (2nd edition). II; (2).

Professor POMEROY

19. *Partnership*.—Mechem's *Cases on Partnership*, (2nd edition). I; (2).

Professor HALE

20. *Equity Pleading*.—Rush's *Cases on Equity Pleading*; selected Illinois and Federal Cases. II; (2). Professor HARKER

24. *Municipal Corporations*.—Beale's *Cases on Municipal Corporations*. II; (2). Professor POMEROY

27. *Future Interests in Property*.—Gray's *Cases on Property*, Vol. V and part of Vol. VI, (2nd edition). II; (3). Assistant Professor CARPENTER

NOTE: Given in 1915-16 and in alternate years.

28. *Insurance*.—Wambaugh's *Cases on Insurance*. I; (2).

Professor GREEN

NOTE: Given in 1915-16 and in alternate years.

30. Public International Law.—Lawrence's *Principles of International Law* and Scott's *Cases on International Law*. I; (3). Professor GARNER

[32. Quasi-Contracts.—Woodruff's *Cases on Quasi-Contracts*. II; (2). Given in alternate years. Not given in 1915-16.]

[34. Public Utilities.—Wyman's *Cases on Public Service Companies*, (2nd edition). II; (2). Given in alternate years. Not given in 1915-16.]

35a. Brief Making.—Lectures and assigned work. I; (1).

Professor DECKER

35b. Moot Court.—II; (1).

Professor HARKER

*Prerequisite:* Law 4 and 35a.

### Third Year Courses

4a. Illinois Procedure.—I; (3). Professor HARKER

17. Private Corporations.—Canfield and Wormser's *Cases on Private Corporations*. II; (4). Professor GREEN

21. Suretyship.—Ames' *Cases on Suretyship*. II; (3).

Professor DECKER

*Prerequisite:* Law 15.

22. Constitutional Law.—Hall's *Cases on Constitutional Law*. I; (3). Professor GREEN

23. Mortgages and the Recording Acts.—I; (2). Professor POMEROY

25. Bankruptcy.—Williston's *Cases on Bankruptcy*, (2nd edition). I; (2). Professor POMEROY

31. Conflict of Laws.—Beale's *Shorter Selection of Cases on Conflict of Laws*. II; (2). Professor VERNIER

33. Constitutional Law.—Hall's *Cases on Constitutional Law*. II; (2). Professor GREEN

36a-36b. Moot Court.—I, II; (2). Professor HARKER

*Prerequisite:* Law 4, 20, and 35a.

### LIBRARY SCIENCE

PHINEAS LAWRENCE WINDSOR, Ph.B., Director

FRANCES SIMPSON, M.L., B.L.S., Assistant Director, Assistant Professor

FLORENCE RISING CURTIS, A.B., B.L.S., Associate

ERNEST JAMES REECE, Ph.B., Associate

ETHEL BOND, A.B., B.L.S., Instructor and Catalog Reviser

EMMA FELSENTHAL, Ph.B., B.L.S., Instructor and Reference Assistant

EDNA LYMAN SCOTT, Special Lecturer

FANNY WILDER HILL, A.B., B.L.S., Reviser and Assistant

### LECTURERS FROM THE STAFF OF THE LIBRARY

FRANCIS KEENE WYNKOOP DRURY, A.M., B.L.S., Lecturer, Order Work

PHILIP SANFORD GOULDING, A.B., Lecturer, Cataloging

CHARLES EDWARD GRAVES, A.B., Lecturer, Exchanges

Alice SARAH JOHNSON, A.B., B.L.S., Lecturer, General Reference

EMMA REED JUTTON, B.L.S., Lecturer, Loans

ADAH PATTON, B.L.S., Lecturer, Cataloging

MARGARET HUTCHINS, A.B., B.L.S., *Lecturer, General Reference*  
 OLA M WYETH, A.B., B.L.S., *Lecturer*  
 MARY TORRANCE, A.B., B.L.S., *Lecturer*  
 CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Lecturer*  
 WINIFRED FEHRENKAMP, B.L.S., *Lecturer*

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EVA CLOUD, *Lecturer in the Summer Session*

2a-2b. *Reference Work.*—Methods of bibliographic research; use of reference books; practical work in the reference department of the University library. *I, II; (3).* Assistant Professor SIMPSON

3a-3b. *Selection of Books.*—Selection for libraries of different types; standard lists, critical periodicals, and other aids; practise in writing book annotations. *I, II; (2).* Miss FELSENTHAL

4a-4b. *Practise Work.*—Work in the various departments of the University library. (To be taken with Library 2, 16, 17, 18, 19, 20, and 21.) *I, II; (2).* Mr. REECE

6a-6b. *Subject Bibliography.*—Books in special subjects; literature and bibliography. Lectures by professors in the respective departments of the University. *I, II; (2).* Director WINDSOR, and others

[7. *History of Libraries.*—The foundation, development, and resources of libraries of Europe and the United States. *I; (2).* Given in alternate years. Not given, 1915-16. Assistant Professor SIMPSON]

8. *Advanced Reference.*—Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. *I; (2).* Assistant Professor SIMPSON

*Prerequisite:* Library 2a-2b.

9. *History of Books and Printing.*—The early forms of books; the invention and spread of printing; book illustration; book-binding. Given in alternate years. *II; (2).* Director WINDSOR

10a-10b. *Practise Work.*—(Continuation of course 4, supplemented by one month of work on the staff of an assigned public library.) *I, II; (4).* Miss CURTIS

12. *General Reference.*—Classification and arrangement of books in the University library; card catalogs; reference books. (Intended for freshmen and sophomores in the University, not for students in Library School.) *I or II; (2).* Miss HUTCHINS, Miss FELSENTHAL, Miss JOHNSON

13a-13b. *Public Documents.*—13a: Production and distribution of United States documents; their treatment and use as reference books. 13b: American state and municipal documents; publications of foreign governments. *I, II; (2).* Mr. REECE

15a-15b. *Seminar in Library Economy.*—Special problems; library economy publications. *I, II; (2).* Mr. REECE and others

16. *Order, Accession, and Shelf Work.*—Order department records and routine; book-buying; publishers and discounts; copyright; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; care of pamphlets, clippings, and maps. *I; (2).* Miss CURTIS

17. **Classification and Subject Headings.**—Dewey Decimal and Cutter expansive systems; subject headings for dictionary catalog; book numbers. *I*; (3). Miss BOND
18. **Cataloging.**—Dictionary catalog; classed catalog. *I*; (3). Miss BOND
19. **Trade Bibliography.**—Books and periodicals used as tools of the book trade of America, England, Germany, and France. *II*; (1). Mr. REECE
20. **Loan Department.**—Records; representative systems; rules, regulations, and practises. *II*; (1). Miss JUTTON
21. **Printing, Binding, and Indexing.**—*Printing:* Printing for libraries; preparing copy and reading proof. *Binding:* Materials and methods of book-binding for libraries; practise in preparing books for the bindery and in making necessary records. *Indexing:* Magazine and book indexing; marking copy, choice and arrangement of entries. *II*; (2). Director WINDSOR, Miss CURTIS
22. **Library Legislation.**—Organization and administration of public libraries, special libraries, state library agencies, library training, library periodicals. *II*; (3). Miss CURTIS
- 23a-23b. **Library Administration and Current Library Literature.**—Current library periodicals, bulletins, reports, catalogs, and reading lists; organization, reorganization, and administration of small libraries; planning and equipment of reading rooms and small library buildings; library accounts and business forms. *I, II*; (1). Miss CURTIS
- 24a-24b. **Selection of Books.**—English translation of representative works of French, German, Spanish, Italian, and Russian novelists, dramatists, and short story writers of the 19th century; examination of about forty newly published books each month. *I, II*; (2). Assistant Librarian DRURY
25. **Comparative Classification and Cataloging.**—The principal systems; rules for cataloging. *II*; (1). Miss BOND
- Prerequisite:* Library 17, 18.
- 26a-26b. **Library Administration.**—Advanced trade bibliography; library organization; library architecture; legislative and municipal reference work; library work with children; special topics. *I, II*; (3). Assistant Professor SIMPSON and others
27. **Bibliographical Institutions.**—Organization and work of societies and institutions of America and Europe; cooperative bibliographical undertakings; international bibliography. *I*; (1). Miss PATTON
28. **Practise Work.**—Advanced practise work in departments of the University library. *II*; \*(1 to 4). Miss CURTIS

#### Summer Session Courses

NOTE.—The courses indicated covered six weeks and received no university credit. Only people employed in libraries were admitted.

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course: e. g., not 1-4, but 1, or 2, or 3, or 4.

- S 1. Classification; Cataloging; Book Numbers.—*Five times a week.*
- S 2. Reference Work.—Reference books suited to the small public library. *Twice a week.*
- S 3. Selection of Books.—Book selection and subject bibliography. *Twice a week.*
- S 4. Work with Children.—Selection and discussion of children's books; administration of children's libraries; classification and cataloging. *Twice a week.*
- S 5. Order and Accession; Loan Department; Binding and Repair.—*Twice a week.*
- S 6. Library Administration and Extension.—*Twice a week.*

### MANUAL TRAINING

#### Summer Session Only

*JOSEPH C PARK, Director of Industrial Education, Oswego, New York*

*LEWIS J HAAS, Assistant in Art Metal Work*

*JAMES MERRION DUNCAN, Assistant in Pattern Making*

The courses in manual arts have been arranged to satisfy the needs of three classes of students who attend the summer sessions; (1) superintendents, principals, and teachers in small schools who pursue the work with the idea of either teaching or supervising it in their schools; (2) manual arts teachers and supervisors who take the courses to increase their knowledge and experience; (3) students in other courses who take the work to enrich their experience.

S 1. Industrial Education.—Typical schools and systems of manual arts; schemes for the promotion of industrial education; organization; equipments and materials. (2½). Mr. PARK

S 2. Woodworking.—For teachers in the seventh and eighth grades and high schools.) Tools; joints; arts and crafts furniture; talks, papers, problems, work at the bench. (Fee, \$5.) (3). Mr. PARK, Mr. DUNCAN

S 3. Woodworking.—(For teachers who have completed S 2). Cabinet making; designing and making furniture; wood turning. (Fee, \$5.) (3). Mr. PARK, Mr. DUNCAN

S 4. Elements of Drafting.—Freehand and mechanical lettering; use of instruments on standard set of working drawing plates; tracing, machine sketching, isometric and oblique projection, perspective. (4). Mr. CRANE

S 5. Descriptive Geometry.—Point, line, and plane; properties of surfaces; intersections and developments of surfaces. (4). Mr. CRANE

S 6. Pattern Shop.—Care and use of tools; construction of patterns, core-boxes; use of machines. (3). Mr. DUNCAN

S 9. Art Metal Work.—Use and care of tools; hammering from sheet copper, brass, and silver; raising, annealing, filing, sawing or piercing, etching, repoussé, enameling, coloring; art lamps, lanterns, candlesticks, boxes, furniture settings. (Fee, \$3.) (2½). Mr. HAAS

S 10. Jewelry.—Buckles, jobs, chains, necklaces, pendants, rings, setting of stones; casting silver; polishing and finishing metals; coloring by chemical and electrical methods. (Fee, \$3.) (2½). Mr. HAAS

## MATHEMATICS

EDGAR JEROME TOWNSEND, Ph.D., LLD., Professor  
 GEORGE ABRAM MILLER, Ph.D., Professor  
 HENRY LEWIS RIETZ, Ph.D., Professor  
 JAMES BYRNIE SHAW, D.Sc., Associate Professor  
 CHARLES HERSCHEL SISAM, Ph.D., Assistant Professor  
 ARNOLD EMCE, Ph.D., Assistant Professor  
 ROBERT DANIEL CARMICHAEL, Ph.D., Assistant Professor  
 ARTHUR ROBERT CRATHORNE, Ph.D., Associate  
 ROBERT LACY BORGER, Ph.D., Associate  
 ERNEST BARNES LYtle, Ph.D., Associate  
 GUSTAF ERIC WAHLIN, Ph.D., Associate  
 AUBREY JOHN KEMPNER, Ph.D., Associate  
 WILLIAM WELLS DENTON, Ph.D., Instructor  
 EDWARD WILSON CHITTENDEN, Ph.D., Instructor  
 LEVI THOMAS WILSON, Ph.D., Instructor  
 GUY WATSON SMITH, M.S., Assistant  
 WILLIAM HAROLD WILSON, A.M., Assistant  
 ROBERT HASKELL MARSHALL, A.B., Assistant  
 HOBART D. FRARY, M.E., M.S., Assistant  
 RAYMOND FRANKLIN BORDEN, Ph.M., Assistant  
 WILLIAM EDWARD ROTE, Assistant  
 JOHN SHERMAN BEEKLEY, A.B., Graduate Assistant  
 CHARLES FRANCIS GREEN, A.M., Graduate Assistant

HENRY CHARLES ZEIS, A.M., Assistant in the Summer Session

**Major:** Twenty hours made up from any undergraduate courses offered by the department, except Mathematics 2, 4, and 8, and including Mathematics 7 and 9.

**Minors:** Twenty hours selected from physics, chemistry, and astronomy.

## Courses for Undergraduates

2. College Algebra.—I or II; (3).

Assistant Professor SISAM, Assistant Professor CARMICHAEL, Dr. BORGER, Dr. LYtle, Dr. WAHLIN, Dr. KEMPNER, Dr. REED, Dr. DENTON, Dr. CHITTENDEN, Dr. WILSON, Mr. SMITH, Mr. WILSON, Mr. MARSHALL, Mr. FRARY, Mr. BORDEN, Mr. ROTE

**Prerequisite:** Entrance algebra, 1½ units; plane geometry, 1 unit.

4. Plane Trigonometry.—I or II; (2).

Professor MILLER, Assistant Professor EMCE, Assistant Professor CARMICHAEL, Dr. BORGER, Dr. LYtle, Dr. WAHLIN, Dr. KEMPNER, Dr. REED, Dr. DENTON, Dr. CHITTENDEN, Dr. WILSON, Mr. SMITH, Mr. WILSON, Mr. MARSHALL, Mr. FRARY, Mr. BORDEN, Mr. ROTE

**Prerequisite:** Entrance algebra, 1½ units; plane geometry, 1 unit.

5. Teachers' Course.—Secondary algebra and geometry; their educational value; position in course; methods of teaching; correlation; comparison of American methods with those of foreign countries; order and importance of topics; text-books; literature. Lectures; discussions; reports. I; (2).

**Prerequisite:** Junior standing.

Dr. LYtle

**6. Analytic Geometry.**—Plane and solid analytic geometry. *II*; (5). Associate Professor SHAW, Assistant Professor SISAM, Dr. CRATHORNE, Dr. BORGER, Dr. LYTHE, Dr. WAHLIN, Dr. KEMPNER, Dr. REED, Dr. DENTON, Dr. CHITTENDEN, Dr. WILSON, Mr. SMITH, Mr. WILSON, Mr. MARSHALL, Mr. FRARY, Mr. BORDEN, Mr. ROTH

**7-9. Differential and Integral Calculus.**—Functions of one and of several variables. (Section A1 is an honor section and may be selected by those specializing in mathematics or having an average grade of 90 in freshman mathematics.) *I*; (5); *II*; (3).

Professor TOWNSEND, Professor REITZ, Associate Professor SHAW, Assistant Professor SISAM, Assistant Professor EMCH, Assistant Professor CARMICHAEL, Dr. CRATHORNE, Dr. BORGER, Dr. LYTHE, Dr. WAHLIN, Dr. KEMPNER, Dr. CHITTENDEN.

NOTE: Two sections of Mathematics 7 are given the second semester.

*Prerequisite:* Mathematics 6.

**8. Differential and Integral Calculus.**—(For students in chemistry and chemical engineering). *I*; (5). Professor MILLER, Mr. SMITH

*Prerequisite:* Mathematics 6.

**9a. Differential and Integral Calculus.**—(Second course). The definite (single and multiple) integral; formation of problems in applied mathematics; line, surface, and volume integrals; the theorem of Stokes and Green; partial differentiation; exact integrals with applications of the conditions for exactness; elements of differential equations, approximate quadrature and integration of differential equations. *I*; (2)

Associate Professor SHAW, Dr. CRATHORNE, Dr. BORGER, Dr. DENTON

#### Courses for Advanced Undergraduates and Graduates

**10. Theory of Equations and Determinants.**—An algebraic equation in one unknown; solutions of systems of simultaneous equations; theory of a system of linear equations; determinants. *II*; (3). Professor MILLER

*Prerequisite:* Mathematics, 6, 7, 9 (or 8).

**16-17. Differential Equations and Advanced Calculus.**—Ordinary and partial differential equations; special topics of calculus of value in the application of mathematics not included in Mathematics 7, 9. *I, II*; (3).

Professor TOWNSEND

*Prerequisite:* Mathematics 7 and 9, (or 8).

**18. Constructive Geometry.**—Development and training of space perception; properties of lines, planes, and the simpler surfaces of the second order studied by methods of parallel and central projection; graphical interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. *I*; (3). Assistant Professor EMCH

*Prerequisite:* Mathematics 6.

**19. Solid Analytic Geometry.**—Equations of the plane and right line in space; the more general properties of surfaces of the second degree; the classification and special properties of quadrics; a brief introduction to the theory of surfaces. *II*; (3). Assistant Professor SISAM

*Prerequisite:* Mathematics 7, 9 (or 8), and 10.

**21. Method of Least Squares.**—Law of probability and error; adjustment of observations; precision of observations; independent and conditional observations. *I*; (2). Professor STEBBINS

*Prerequisite:* Mathematics 7, 9 (or 8).

**23. Averages and Mathematics of Investment.**—Meaning, use, and abuse of different kinds of averages; probability; annuities, insurance, and branches of science; loans and investments; the evaluation of investment securities. *II*; (3). Professor REITZ

*Prerequisite:* Mathematics 2; junior standing.

**24-25. Functions of a Complex Variable.**—*I, II*; (3).

Professor TOWNSEND

*Prerequisite:* Mathematics 7, 9, 16-17.

[**31. Actuarial Theory.**—Application of probability to life contingencies; mortality tables; fire insurance; premiums for various types of insurance. *I*; (3). Not given, 1915-16. Professor RIETZ

*Prerequisite:* Mathematics 7, 9 (or 8), and 23.]

[**32. History of Mathematics.**—The elementary subjects; rise and growth of the higher mathematics chiefly in the nineteenth century; biography of persons influential in this development. Lectures; reports on assigned reading. *II*; (2). Not given, 1915-16. Dr. LYTHE

*Prerequisite:* Junior standing in mathematics.]

[**33-34. Modern Algebra.**—Theory of matrices; system of linear equations; bilinear and quadratic forms; properties of polynomials; algebraic invariants; elementary divisors. *I, II*; (3). Not given, 1915-16. Dr. BORGER

*Prerequisite:* Mathematics 7, 9, 10.]

**27-28. Projective Geometry.**—Fundamental concepts; anharmonic ratio; projective pencils and ranges; transformations and groups; theory of conics and quadric surfaces; pencils and ranges of conics; quadratic transformations and projective theory of cubics; applications in mechanics. *I, II*; (3).

Assistant Professor EMCH

*Prerequisite:* Senior standing in mathematics.

**40. Fundamental Concepts of Mathematics.**—The concepts of higher mathematics in their bearing on elementary mathematics. *II*; (2).

Dr. LYTHE

*Prerequisite:* Junior standing in mathematics.

#### Courses for Graduates

**100. Seminar and Thesis.**—*Three times a week; I, II; (1 or 2 units).* Professor TOWNSEND, Professor MILLER, Professor RIETZ, Associate Professor SHAW, Assistant Professor SISAM, Assistant Professor EMCH, Assistant Professor CARMICHAEL

[**101. Functions of Real Variables.**—Real variables; assemblages. *Three times a week; I, II; (1 unit).* Not given, 1915-16. Professor TOWNSEND

*Prerequisite:* Mathematics 16-17.]

**104. Expansions in Fundamental Functions.**—Theory of integral equations; methods of expansion of arbitrary functions in terms of the characteristic

functions of a given nucleus; applications of Green's functions, Potential functions, Fourier series, series of Legendrians, of Bessel functions; differential equations of physics under given boundary conditions; the inversion of definite integrals. *Three times a week; I, II; (1 unit).* Associate Professor SHAW

**105. Calculus of Variations.**—Those elements of the science most needed in the study of the higher subjects of mathematical astronomy and physics. *I, II; (1 unit).* Dr. CRATHORNE

*Prerequisite:* Mathematics 16.

**110. Elliptic Functions.**—Application to geometry and mechanics; the elliptic modular functions. *Three times a week; I, II; (1 unit).*

Assistant Professor CARMICHAEL

*Prerequisite:* Mathematics 24.

**[111. Automorphic Functions.]**—*First semester:* The group-theoretic side of the theory. *Second semester:* Function-theoretic developments and applications. *Three times a week; I, II; (1 unit).* Not given, 1915-16.

Assistant Professor EMCH

*Prerequisite:* Mathematics 24-25 and preferably 27-28 and 110.]

**[113. Theory of Linear Differential Equations.]**—*Three times a week; I, II; (1 unit).* Not given, 1915-16. Dr. CRATHORNE

*Prerequisite:* Mathematics 24-25.]

**[120. Elementary Theory of Groups.]**—Groups in arithmetic, geometry, and trigonometry; those which can be represented with a small number of letters; the abstract group theory; the Galois theory of equations. *Three times a week; I, II; (1 unit).* Not given, 1915-16. Professor MILLER

*Prerequisite:* Mathematics 33-34.]

**121. Theory of Groups.**—A second course in the theory of groups of finite order. *Three times a week; I, II; (1 unit).* Professor MILLER

*Prerequisite:* Mathematics 120.

**124. Theory of Numbers.**—Conferences; Kronecker's modular systems; quadratic residues and forms; algebraic numbers. *Three times a week; I, II; (1 unit).* Dr. WAHLIN

**129. Theory of Statistics.**—Statistical investigation; application of the theory of probability to statistical data; fitting curves to observation; interpolation; theory of errors; variability and correlation; problems in economics, sociology, and biology. *Three times a week; I, II; (1 unit).* Professor RIETZ

*Prerequisite:* Mathematics 8.

**[130. Invariants and Higher Plane Curves.]**—Algebraic curves; application of the theory of invariants to higher plane curves; curves of the third and fourth order. *Three times a week; I, II; (1 unit).* Not given, 1915-16.

Assistant Professor SISAM

*Prerequisite:* Mathematics 16, 27.]

**[131. Algebraic Surfaces.]**—Homogeneous coordinates, invariants, and geometry of three dimensions; surfaces; special properties of surfaces of the third and fourth order. *Three times a week; I, II; (1 unit).* Not given, 1915-16.

Assistant Professor SISAM

*Prerequisite:* Mathematics 19.]

**135. Metric Differential Geometry.**—The calculus and the general theory of curves and surfaces based on the use of Cartesian coordinates; theory of surfaces and the theory of invariants of a pair of quadratic differential forms. *Three times a week; I, II; (1 unit).* Assistant Professor SISAM

*Prerequisite:* Mathematics 16.

[**141. Vector Methods.**—The algebras of quaternions, space analysis, and dyadics; differentiation and integration; rational mechanics, elasticity, hydrodynamics, electrodynamics. *Three times a week; I, II; (1 unit).* Not given, 1915-16. Associate Professor SHAW

*Prerequisite:* Mathematics 16.]

[**142. General Algebra.**—Linear associative algebra or hyper-complex numbers; systems useful for the geometry and physics of  $N$  dimensions; relativity theories, and general differential and integral invariants; linear operators and functional equations; general analysis, integro-differential equations, infinite systems; operators; general invariant theories. *Three times a week; I, II; (1 unit).* Not given, 1915-16. Associate Professor SHAW

*Prerequisite:* Mathematics 16-17.]

#### Summer Session Courses

**S 2. College Algebra.**—(Equivalent to course 2) Rietz and Cra-thorne's *College Algebra*. (3). Dr. WAHLIN

*Prerequisite:*  $2\frac{1}{2}$  units entrance mathematics.

**S 4. Plane Trigonometry.**—(Equivalent to course 4.) Kenyon and Ingold's *Trigonometry*. (2). Mr. ZEIS

*Prerequisite:*  $2\frac{1}{2}$  units entrance mathematics.

**S 6. Analytical Geometry.**—(Equivalent to course 6.) Zi wet and Hopkins' *Analytic Geometry*. (5). Dr. KEMPNER

*Prerequisite:* Mathematics 2 and 4.

**S 7. Differential Calculus.**—(Equivalent to course 7). Townsend and Goodenough's *Essentials of Calculus*. (5). Mr. WILSON

*Prerequisite:* Mathematics 6.

**S 9. Integral Calculus.**—(Equivalent to Mathematics 9). Townsend and Goodenough's *Essentials of Calculus*. (3). Assistant Professor SHAW, Mr. ZEIS

*Prerequisite:* Mathematics 7.

\***S 10. Theory of Equations and Determinants.**—For description, see Mathematics 10. Text: Dickson's *Elementary Theory of Equations*, (3). Dr. WAHLIN

*Prerequisite:* Mathematics 6.

\***S 16. Differential Equations.**—For descriptions, see Mathematics 16. (3). Assistant Professor SHAW

*Prerequisite:* Mathematics 8 or 9.

**MECHANICAL ENGINEERING**

CHARLES RUSS RICHARDS, M.M.E., *Professor*

GEORGE ALFRED GOODENOUGH, M.E., *Professor, Thermodynamics*

BRUCE WILLET BENEDICT, B.S., *Director, Shop Laboratories*

LEWIS ALLEN HARDING, M.E., *Professor Experimental Mechanical Engineering*

OSCAR ADOLPH LEUTWILER, M.E., *Professor, Machine Design*

ARTHUR CUTTS WILLARD, B.S., *Assistant Professor, Heating and Ventilation*

JOHN ADLUM DENT, M.E., *Associate*

GEORGE BENJAMIN RICE, *Lecturer on the Installation and Operation of Mechanical Equipment for Buildings, and Assistant Mechanical Engineer in the Office of the Supervising Architect*

ALONZO PLUMSTED KRATZ, M.S., *Research Associate, Engineering Experiment Station*

HARRY FREDERICK GODEKE, B.S., *Instructor*

EDWIN FRANK, B.S., *Instructor*

HARRY WILLIAM WATERFALL, B.S., *Instructor, Machine Design*

HORATIO SPRAGUE MCDEWELL, M.M.E., *Instructor*

EDGAR THOMAS LANHAM, *Instructor, Forge Practise*

ROBERT EDWIN KENNEDY, *Instructor, Foundry Practise*

GUSTAVE ADOLPH GROSS, *Instructor, Pattern Making*

GUSTAV HOWARD RADEBAUGH, *Instructor, Machine Practise*

JAMES HARVEY HOGUE, *Instructor, Foundry Practise*

JEREMIAH AMOS DE TURK, B.S., *Instructor, Machine Practise*

LERoy ALONZO WILSON, M.M.E., *First Assistant, Engineering Experiment Station*

JAMES MERION DUNCAN, *Assistant, Pattern Making*

PETER JOSEPH REBMAN, *Assistant, Forge Practise*

JOHN ALEXANDER FRISK, *Assistant and Mechanician*

**1. Steam and Air Machinery.**—Construction, operation, and care of boilers, engines, and air compressors; thermodynamics; steam engine performance; compressed air. (For students in civil and mining engineering.) *I; (3).*

Mr. DENT

*Prerequisite:* Junior standing.

**2. Steam Engineering.**—Engines, boilers, pumps, condensers, and other steam machinery. *II; (3).* Mr. GODEKE, Mr. MCDEWELL, Mr. FRANK

*Prerequisite:* Physics 1a-1b, 3a-3b.

**11. Thermodynamics and Heat Engines.**—(For students in electrical engineering.) *I; (3).* Professor GOODENOUGH

*Prerequisite:* Mechanical Engineering 1 or 2.

**12. Thermodynamics.**—Transformation of heat into work; the second law and its connection with irreversible processes; heat media; perfect gases; saturated and superheated vapors; flow of fluids. *II; (5).*

Professor GOODENOUGH

*Prerequisite:* Mathematics 9a; Theoretical and Applied Mechanics 27.

**15. Gas Power Engineering.**—Internal combustion engines; liquid and gaseous fuels and their combustion; gas producers. *I; (3).*

Professor RICHARDS

*Prerequisite:* Mechanical Engineering 12.

**23. Mechanical Equipment of Buildings.**—Designing systems: Heating and ventilation; refrigeration; fire protection; vacuum cleaning; elevators; lighting; small power plants. Lectures; laboratory. *I*; (5).

Assistant Professor WILLARD

*Prerequisite:* Senior standing.

**25. Heating and Ventilation for Architects.**—Direct and indirect steam and hot water heating; furnace heating; ventilation and air analysis; air condition; temperature and humidity control. *I*; (2).

Assistant Professor WILLARD

*Prerequisite:* Senior standing.

**26. Heating and Ventilation.**—Steam boilers and water heaters of steel and cast iron for heating service; heat losses from buildings; direct and indirect steam and hot water heating, using gravity systems; furnace heating; fan blast or mechanical indirect systems; exhaust steam heating; district heating by steam and water; ventilation and air analysis; air conditioning; temperature and humidity control. *II*; (3).

Assistant Professor WILLARD

*Prerequisite:* Mechanical Engineering 65.

**30. Mechanics of Machinery.**—Mechanisms and mechanical movements; cams, gears, valve gears, and quick-return motions; graphic constructions for displacement, velocity, and acceleration; kinetics of the steam engine and similar mechanisms; balancing; critical speeds; force and mass reduction. *II*; (5).

Mr. DENT

*Prerequisite:* Theoretical and Applied Mechanics 27.

**32. Power Transmission.**—Shafting, belts, ropes, cables, water, air, gas, and steam; measurement and storage of power. *II*; (3).

Professor RICHARDS, Mr. McDowell

*Prerequisite:* Mechanical Engineering 12 and 43.

**37. Principles of Management.**—Industrial development; modern industrial tendencies; organization; selection and compensation of labor; application of science to industrial problems; shop systems of management; production. *I*; (3).

Director BENEDICT

*Prerequisite:* Mechanical Engineering, 81, 82.

**43. Engineering Design.**—Machine design; investigation of machines similar to the one to be designed; machinery subjected to heavy and variable stresses; punches, shears, presses, riveters, and cranes. *I*; (5).

Professor LEUTWILER, Mr. WATERFALL

*Prerequisite:* Theoretical and Applied Mechanics 29; Mechanical Engineering 30.

**44. Engineering Design.**—Special tools, fixtures, jigs, dies, and gauges used in high production manufacturing. *II*; (2).

Professor LEUTWILER, Director BENEDICT, Mr. WATERFALL

*Prerequisite:* Mechanical Engineering 37 and 43.

**52. Power Plant Design.**—Steam power plant. *II*; (3).

Professor LEUTWILER, Mr. WATERFALL

*Prerequisite:* Mechanical Engineering 43 and 65.

**54. Industrial Plant Design.**—Design and equipment; buildings, heating, ventilation, lighting, power generation, and transmission; drying processes. *II*; (3). Professor HARDING

*Prerequisite:* Mechanical Engineering 43 and 65.

**61. Power Measurement.**—Testing and calibrating instruments and apparatus; the indicator; horse-power and steam consumption; indicator diagrams; valve setting. (For students in electrical engineering.) *I*; (2).

Mr. GOEDEKE, Mr. FRANK, Mr. McDEWELL

*Prerequisite:* Mechanical Engineering 1 or 2.

**62. Power Measurement and Steam Engines.**—Laboratory, substantially the same as Mechanical Engineering 61; lectures. *II*; (3).

Mr. GOEDEKE, Mr. FRANK, Mr. McDEWELL

*Prerequisite:* Junior standing.

**64. Power Measurement.**—Engine and boiler tests—scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; calibration and use; horse-power of steam engines, pumps, and gas engines. Reports. *II*; (3). Mr. GOEDEKE, Mr. FRANK, Mr. McDEWELL

*Prerequisite:* Mechanical Engineering 2; registration in Mechanical Engineering 12 or Chemistry 31.

**65. Power Laboratory.**—Engines; turbines; gas engines; pumps; boilers; injectors; air compressors; hoisting appliances; heating apparatus; refrigerating machines. *I*; (3).

Professor HARDING, Mr. GOEDEKE, Mr. FRANK, Mr. McDEWELL

*Prerequisite:* Mechanical Engineering 12 and 64.

**66. Power Laboratory.**—Special research. *II*; (2).

Professor HARDING, Mr. GOEDEKE, Mr. FRANK, Mr. McDEWELL

*Prerequisite:* Mechanical Engineering 65; senior standing.

**71. Forge Work for Agricultural Students.**—Forging and welding; tempering tools; pointing and hardening cultivator shovels, plow shares. *Six hours a week, either half of I or II*; (1). Mr. LANHAM, Mr. REBMAN

**73. Wood Work for Agricultural Students.**—Carpentry for the farmer; use of tools; layout and construction of building joints; repairs to buildings and equipment. *Six hours a week, either half of I or II*; (1). Mr. GROSS, Mr. DUNCAN

**75. Forge Work.**—Hand and power forging and welding of metals; heat treatment of carbon and high speed steels in modern gas, electric, and cyanide furnaces; case carbonizing. (9 weeks.) *I or II*; (1). Mr. LANHAM, Mr. REBMAN

**77. Foundry Work.**—Bench, floor, and machine moulding; core making; operation of cupola and brass furnace; casting of iron, brass, and alloys. (9 weeks.) *I or II*; (2). Mr. KENNEDY, Mr. HOGUE

**79. Pattern Work.**—Hand and machine methods. (18 weeks.) *I or II*; (3). Mr. GROSS, Mr. DUNCAN

**81-82. Machine Work.**—Modern manufacturing methods; machine operation; shop management; organization; production methods; dispatching

work; ordering, storing, and routing materials; time studies; shop accounting; inspection and all activities of the machine department of a manufacturing plant. *I*; (3); *II*; (2). Mr. RADEBAUGH, Mr. DE TURK

**99. Thesis.**—Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. *II*; (3).

### Courses for Graduates

Entrance upon graduate work in mechanical engineering presupposes the full undergraduate curriculum in that subject.

**106. Heat Motors.**—The internal combustion motor; steam turbine; refrigeration. *Twice a week*; (*1 unit*). Professor GOODENOUGH

**107. Thermodynamics.**—Thermodynamics; application to physical and engineering problems. *Twice a week*; *I*; (*1 unit*). Professor GOODENOUGH

**109. Machine Design.**—Rational design; application of mechanics of materials. Individual problems. *Twice a week*; *I or II*; (*1 unit*). Professor LEUTWILER

**112. Laboratory Investigation.**—Combustion of fuel; boiler economy; steam engines and turbines; gas engines and producers; explosive mixtures; mechanical refrigeration. Original work. *Three times a week*; *I, II*; (*1½ units*). Professor RICHARDS, Professor HARDING

**114. Dynamics of Machinery.**—Advanced problems. Balancing, whirling and vibration of shafts; governors; fly wheels; force and mass reduction; stresses in rotating masses. *Twice a week*; *I, II*; (*1 unit*). Professor GOODENOUGH

### MECHANICS, THEORETICAL AND APPLIED

ARTHUR NEWELL TALBOT, C.E., D.Sc., *Professor, Municipal and Sanitary Engineering, in Charge of Theoretical and Applied Mechanics*

HERBERT FISHER MOORE, M.M.E., *Research Professor, Engineering Materials, Engineering Experiment Station*

MELVIN LORENIUS ENGER, C.E., *Assistant Professor, Mechanics and Hydraulics*  
WILLIS APPLEFORD SLATER, M.S., C.E., *Research Assistant Professor, Applied Mechanics, Engineering Experiment Station*

VIRGIL R FLEMING, B.S., *Associate*

FRED B SEELY, M.S., *Associate*

GEORGE PAUL BOOMSLITER, M.S., *Associate*

NEWTON EDWARD ENSIGN, A.B., B.S., *Associate*

CLARENCE EUGENE NOERENBERG, A.B., A.E., *Instructor*

HARRY GARDNER, M.S., *Instructor*

ALEX VALLANCE, M.E., *Instructor*

WILLIAM JAMES PUTNAM, B.S., *Instructor*

HARRISON FREDERICK GONNERMAN, M.S., *First Assistant, Engineering Experiment Station*

**1. Analytical Mechanics.**—Specially designed for graduates and advanced undergraduates in arts and sciences. Lamb's *Statics* and Lamb's *Dynamics*. *I*; (3). Mr. ENSIGN

*Prerequisite:* Mathematics 8 or 9.

**2. Analytical Mechanics.**—(A continuation of course 1.) Lamb's *Dynamics. II*; (3). Mr. ENSIGN

*Prerequisite:* Theoretical and Applied Mechanics 1.

**10. Hydraulics.**—Pressure and flow of water; utilization as motive power; power and efficiency; determination of experimental coefficients. Hoskin's *Text-Book on Hydraulics. Laboratory weekly; II*; (3).

Assistant Professor ENGER, Mr. FLEMING, Mr. SEELY, Mr. BOOMSLITER, Mr. VALLANCE

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 21.

**14. Elements of Mechanics.**—Kinematics; kinetics; statics. (For architects and others who have not taken the calculus.) Morley's *Mechanics for Engineers. II*; (4). Mr. BOOMSLITER, Mr. GARDNER

*Prerequisite:* Mathematics 2, 4.

**15-16. Strength of Materials.**—Graphic methods of determining the elastic curve of beams; centroids and moments of inertia of areas; reinforced concrete beams and columns; properties and tests of engineering materials. (For students in architecture and others without the prerequisites required for course 29.) Murdock's *Strength of Materials. Laboratory every other week. I, II*; (3).

Mr. BOOMSLITER, Mr. NOERENBERG, Mr. ENSIGN, Mr. GARDNER, Mr. VALLANCE

*Prerequisite:* Theoretical and Applied Mechanics 14.

**20. Analytical Mechanics.**—The mechanics of engineering rather than that of astronomy and physics. Equilibrium; centroids and center of gravity; friction; engineering problems. Maurer's *Technical Mechanics. II*; (3).

Mr. BOOMSLITER, Mr. ENSIGN, Mr. NOERENBERG, Mr. GARDNER, Mr. PUTNAM

*Prerequisite:* Mathematics 7; registration in Mathematics 9.

**21. Analytical Mechanics.**—Continuation of course 20. Kinematics; kinetics. Maurer's *Technical Mechanics. I*; (2).

Mr. BOOMSLITER, Mr. ENSIGN, Mr. GARDNER, Mr. PUTNAM

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

**25. Resistance of Materials.**—Condensation of course 29. (For students in architectural, ceramic, chemical, electrical, mining, and railway engineering.) Merriman's *Mechanics of Materials. I*; (4).

Assistant Professor ENGER, Mr. FLEMING, Mr. BOOMSLITER, Mr. ENSIGN, Mr. SEELY, Mr. VALLANCE, Mr. PUTNAM

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

**26. Analytical Mechanics and Hydraulics.**—Kinematics; kinetics; hydraulics; problems; experiments in the hydraulic laboratory. (For students in architectural, electrical, and mining engineering.) *Laboratory weekly during the last half of semester.* Maurer's *Technical Mechanics* and Hoskin's *Text-book on Hydraulics. II*; (4).

Assistant Professor ENGER, Mr. FLEMING, Mr. SEELY, Mr. BOOMSLITER, Mr. VALLANCE, Mr. PUTNAM

*Prerequisite:* Theoretical and Applied Mechanics 25.

**27. Analytical Mechanics.**—Kinetics; kinematics. (A longer course than Theoretical and Applied Mechanics 21; for mechanical engineering stu-

dents during the transition period of changing curriculums.) Hancock's *Applied Mechanics for Engineers. I*; (3).

Assistant Professor ENGER, Mr. SEELY, Mr. ENSIGN

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

**29. Resistance of Materials.**—Materials; properties and requirements; the effect of methods of manufacture on quality; specifications and standard tests; experiments and investigations in the materials laboratory. (For students in civil, mechanical, municipal and sanitary, and railway civil engineering.) Recitations; lectures; assigned reading; laboratory weekly. Merriman's *Mechanics of Materials. I*; (5).

Professor TALBOT, Mr. SEELY, Mr. BOOMSLITER, Mr. ENSIGN, Mr. NOERENBERG, Mr. GARDNER, Mr. FLEMING, Mr. VALLANCE, Mr. PUTNAM

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20; registration in Theoretical and Applied Mechanics 21.

**36. Analytical Mechanics.**—The portion of course 26 which involves analytical mechanics. (Open only to railway electrical engineering students.) Maurer's *Technical Mechanics. II*; (2).

Mr. VALLANCE

*Prerequisite:* Theoretical and Applied Mechanics 25.

### Courses for Graduates

Entrance upon graduate work in theoretical and applied mechanics presupposes a full undergraduate curriculum in that subject.

**101. Aanalytical Mechanics.**—Methods; problems and applications. *Twice a week; I; (1 unit)*. Professor MOORE

**102. Resistance of Materials.**—Materials used in engineering construction; analysis and investigation; effect of form of member in a structure or machine; application of forces. *Twice a week; II; (1 unit)*.

Professor MOORE

**103. Hydraulics and Hydraulic Engineering.**—Engineering problems; hydraulic power and its development; design and investigation. *Twice a week; II; (1 unit)*. Professor TALBOT

**104. Experimental Work in the Laboratory of Applied Mechanics.**—(a) Laboratory investigation in the materials-testing laboratory; (b) experimental work in hydraulics laboratory; laws of hydraulics; development of power; problems. *Twice a week; I, II; (½ to 2 units)*.

Professor TALBOT, Professor MOORE

**105. Experimental and Analytical Work in Reinforced Concrete.**—Research; interpretation of available experimental results and their application to the design of structures; principles of construction. *Twice a week; I, II; (1½ unit or more)*. Professor TALBOT

### Summer Session Courses

**S 10. Hydraulics.**—(For description see Theoretical and Applied Mechanics 10 above.) (3). Mr. VALLANCE

*Prerequisite:* Theoretical and Applied Mechanics 21.

**S 14. Elements of Mechanics.**—(For description see Theoretical and Applied Mechanics 14 above.) (4). Mr. ENSIGN

*Prerequisite:* Mathematics 2, 4.

**S 20. Analytical Mechanics.**—The first half of analytical mechanics as given in Maurer's *Technical Mechanics*. (3). Mr. ENSIGN

*Prerequisite:* Mathematics 7; registration in Mathematics 9.

**S 21. Analytical Mechanics.**—The second half of analytical mechanics as given in Maurer's *Technical Mechanics*. (2). Mr. SEELY

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

**S 25. Resistance of Materials.**—The mechanics and properties of materials used in construction; experiments in the testing laboratory; problems. Merriman's *Mechanics of Materials*. (4). Mr. SEELY, Mr. VALLANCE

*Prerequisite:* Mathematics 9; Theoretical and Applied Mechanics 20.

### MEDICINE

(See under COLLEGE OF MEDICINE.)

### METEOROLOGY

(See under GEOLOGY.)

### MILITARY SCIENCE

\*FRANK DANIEL WEBSTER, Major U. S. Infantry, *Professor and Commandant*

†ROBERT WALTER MEARNs, Major U. S. Infantry, *Professor and Commandant*  
FREDERICK WILLIAM POST, 1st Sergeant, U. S. A., retired, *Administrative Assistant*

EDWIN SHELBY, Jr., *Assistant*

FRANCIS MARION VAN NATTER, *Assistant*

LLOYD E. LAMKINS, *Assistant*

RALPH RAYMOND THOMAS, *Assistant*

ROSS SEGUINE MASON, *Assistant*

GEORGE CURTISS, *Assistant*

REINHARD STEINMAYER, *Assistant*

DANIEL EDWIN MILLER, *Assistant*

CHARLES WILLIAM MCCUMBER, *Assistant*

OLIVER EDWIN TROSTER, *Assistant*

**1. Drill Regulations.**—Infantry Drill Regulations. For all freshman men. *II*; (1). Professor MEARNs

**2a-2b-2c-2d. Military Drill.**—*Infantry*: Infantry drill regulations; small-arm firing regulations; bayonet exercise; ceremonies. *Artillery*: School of the Cannoneer and battery dismounted. *Signal Company*: Flag; telegraph; wireless; heliograph. *Engineer Company*: Field engineering; map reading; entrenchments; bridge building. *Hospital Company*: U. S. Army Hospital Corps Drill Regulations. Freshman and sophomore years. Two drill periods a week. *I, II*; (1). Professor WEBSTER, Professor MEARNs

**3a-3b. Advanced Theoretical Instruction.**—For sophomore officers: Infantry drill regulations; small-arm firing regulations. For junior and seniors: Field Service Regulations. This course is obligatory for commissioned officers and sergeants, recommended to corporals, and open to others. *I, II*; (No credit). Professor WEBSTER, Professor MEARNs

\*Detail expired January 22, 1916.

†Detail began January 22, 1916.

**MINERALOGY**

(See GEOLOGY 5, 5a, 6, 7.)

**MINING ENGINEERING**HARRY HARKNESS STOEK, B.S., E.M., *Professor*ELMER ALLEN HOLBROOK, B.S., *Assistant Professor*\*STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Assistant Professor, Mining Research*ALFRED COPELAND CALLEN, B.S., E.M., *Instructor*1. **Earth and Rock Excavation.**—Explosives; blasting; boring; tunneling; shaft-sinking; coal-cutting; timbering and prospecting. *I*; (3). Mr. CALLEN*Prerequisite:* Chemistry 1a or 1b.3. **Mining Principles.**—Terminology; explosives; blasting; drilling; tunneling; shaft-sinking; mining and timbering flat deposits. (For students in engineering courses other than mining.) *I*; (2). Mr. CALLEN*Prerequisite:* Chemistry 1a or 1b.4. **Mining Methods.**—Mining and timbering bedded, vein, and placer deposits. *II*; (2). Professor STOEK*Prerequisite:* Mining 1.5. **Mine Ventilation.**—Mine gases; safety lamps; ventilation; lighting and signaling; explosions and fires; rescue work and first aid. Laboratory. *I*; (3). Professor STOEK, Mr. CALLEN*Prerequisite:* Chemistry 1a or 1b, 4, Physics 1a-1b, 3a-3b, and Mining 4.6. **Mechanical Engineering of Mines.**—Hoisting: Ropes, cages, hoisting engines, and other appliances. Haulage: systems used under-ground and on the surface; loading and unloading; stables; transportation of workmen. Drainage of mines; dams; pumps. *II*; (2). Mr. CALLEN*Prerequisite:* Mechanical Engineering 1, or equivalent.8. **Mine Law, Administration, and Accounts.**—Laws governing location, ownership, and policing; trade agreements, relations between employers and employees; sociology; accounts and cost sheets. *II*; (3).

Professor STOEK, Assistant Professor HOLBROOK

*Prerequisite:* Mining 3 or 4 or Geology 2.9. **Preparation of Coal and Ores.**—History, processes, machines; applications to dry coal preparation and coal washing; breaking, sizing, and concentrating ores. Laboratory. *I*; (3). Assistant Professor HOLBROOK*Prerequisite:* Chemistry 5 and Physics 3a-3b.13. **Utilization of Fuels.**—The manufacture, handling, and utilization of wood, charcoal, peat, lignite, bituminous coal, anthracite, coke, petroleum, natural and artificial gas, and refractories in mining and metallurgy. *II*; (2). Assistant Professor HOLBROOK*Prerequisite:* Junior standing.15. **Principles of Mine Ventilation.**—Mine ventilation, signaling, and lighting. *I*; (1). Mr. CALLEN*Prerequisite:* Chemistry 4; Physics 3a-3b.

\*Resigned, November 30, 1915.

**17. Problems.**—Problems, library research, and reports on mining and metallurgy. *I*; (1). Professor STOEK

**19. Ore and Coal Preparation.**—Machines used in breaking, pulverizing, sizing, classifying, and concentrating ores and mineral products; wet and dry concentration; limits of ore dressing; coal preparation. Laboratory practise in ore concentration. *I*; (3). Assistant Professor HOLBROOK

*Prerequisite:* Chemistry 5; Geology 13a and 13b or equivalent.

**21. Mine Examination and Valuation.**—The methods of examining, valuing, and reporting on a mine; estimation and prospecting of mineral deposits. *I*; (2). Professor STOEK

*Prerequisite:* Min. 3 or 4; Geology 13a and 13b, or equivalent.

**41. Principles of Coal Plant Design.**—Design of mine structures of wood, steel, and masonry; drafting practise in design of coal tipplers and general surface plant. *I*; (3). Assistant Professor HOLBROOK

*Prerequisite:* Civil Engineering 58.

**42. Coal Plant Design.**—General layout; design; estimates for construction and specifications for coal mining plant. *II*; (2). Assistant Professor HOLBROOK

*Prerequisite:* Mining 41.

**43. Principles of Ore Plant Design.**—Design of mine structures of wood, steel, and masonry; drafting practise in design of rock houses, ore bins, and crushing plants. *I*; (3). Assistant Professor HOLBROOK

*Prerequisite:* Civil Engineering 58.

**44. Ore Plant Design.**—General layout; design; estimates for construction and specifications for ore mining plants. *II*; (2). Assistant Professor HOLBROOK

*Prerequisite:* Mining 43.

**45. Principles of Mill and Smelter Design.**—Flow sheets and structures of wood, steel, and masonry; drafting practise on individual designs. *I*; (3). Assistant Professor HOLBROOK

*Prerequisite:* Civil Engineering 58.

**46. Mill and Smelter Design.**—Revised flow sheet; design; estimates for construction and specifications for concentrating plants or smelter. *II*; (2). Assistant Professor HOLBROOK

*Prerequisite:* Mining 45.

**62. Mine Surveying.**—Instruments employed underground and in connecting surface and underground surveys; platting and use of mine maps; mineral land surveying; solar attachments; determination of the meridian. (A surveying trip is made to neighboring mines, the estimated cost of which is \$10.00.) *II*; (3). Mr. CALLEN

*Prerequisite:* Civil Engineering 27.

**64. Coal Mining Laboratory.**—Coals; availability for crushing, dry preparation, washing, and briquetting; commercial tests, using small commercial machines wherever possible; design of flow sheets; analysis of products; estimation of costs. *II*; (3). Assistant Professor HOLBROOK

*Prerequisite:* Mining 9 or 19.

**66. Ore Concentration Laboratory.**—Commercial wet and dry concentration tests on raw ores of lead, zinc, iron; amalgamation and cyanidation of a gold ore; sampling, preparation, and analysis or assay of the products recovered. *II; (3).* Assistant Professor HOLBROOK

*Prerequisite:* Mining 9 or 19.

**68. Mine Topography.**—Stadia; application of topographic and railroad surveying to mining conditions. *II; (1).* Mr. CALLEN

*Prerequisite:* Civil Engineering 27.

**90. Journal Meeting.**—Review of literature; reports; technical writing. *II; (1).* Professor STOEK

**99. Thesis.**—Individual investigation; preparation of thesis giving review of the literature, the results of experimental work, and a general discussion of the subject. *II; (3).*

**Mining Journal Club.**—Review of current literature. *No credit; I, II.*

*Prerequisite:* Junior standing.

#### Courses for Graduates

Entrance upon graduate work in mining engineering presupposes the completion of the undergraduate curriculum in the subject.

**100. Seminar.**—*Once a week; I, II; (1 unit).* Professor STOEK

**101. Advanced Mining Methods.**—Coal and ore fields of the United States; methods and economics of mining; utilization, marketing, storage, and transportation of coal and ores. *Twice a week; I, II; (1 unit).* Assistant Professor STOEK

**102. Advanced Preparation of Coal and Ores.**—Settling ratios; laws of crushing; sorting vs. sizing; specific mill and washing problems. *Twice a week; I, II; (1 unit).* Assistant Professor HOLBROOK

**103. The History of Miners' Organizations.**—*Twice a week; I, II; (1 unit).* Professor STOEK

**104. Mining Reports.**—The law of the apex; classification of coal and ore lands; conservation of mineral resources; mine examination and report. *Twice a week; I, II; (1 unit).* Professor STOEK

**105. Welfare Work and Education Among Mine Employees.**—The organization and operation of mining institutes, night classes, welfare, mine rescue and first-aid work. *Twice a week; I, II; (1 unit).* Professor STOEK

#### MODERN LANGUAGES

(See ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

#### MUNICIPAL AND SANITARY ENGINEERING

ARTHUR NEWELL TALEBOT, C.E., D.Sc., *Professor*

PAUL HANSEN, *Engineer, State Water Survey*

MELVIN LORENIUS ENGER, B.S., C.E., *Assistant Professor, Mechanics and Hydraulics*

HAROLD EATON BABBITT, B.S., *Instructor*

**2. Water Supply Engineering.**—Source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps

and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. Turneaure and Russell's *Public Water Supplies*. I; (4).

Assistant Professor ENGER, Mr. BABBITT

*Prerequisite:* Theoretical and Applied Mechanics 29, 10; Chemistry 1; Mechanical Engineering 1 or 2.

**3. Sewerage.**—Design and construction of sewerage systems; sanitary necessity; separate and combined water carriage systems, surveys, and general plans; hydraulics of sewers; house sewerage and its removal; rainfall and storm water flow; size and capacity of sewers; forms and strength of appurtenances; modern methods of sewage disposal; estimates and specifications. Designing weekly. Metcalf and Eddy's *American Sewerage Practice*. II; (3).

Mr. BABBITT

*Prerequisite:* Theoretical and Applied Mechanics 29, 10; Chemistry 1; Municipal and Sanitary Engineering 2.

**6a-6b. Water Purification, Sewage Disposal, and General Sanitation.**—Impurities in water supplies and their removal; sewage disposal by filtration, chemical precipitation, irrigation; purification plants; garbage; sanitary restrictions and regulations and general sanitation. Lectures; seminar work; drafting. Turneaure and Russell's *Public Water Supplies* and Fuller's *Sewage Purification*. I; (3); II; (2). Professor TALBOT, Mr. HANSEN, Mr. BABBITT

*Prerequisite:* Municipal and Sanitary Engineering 2, 3; Chemistry 1, 2, 3, 10b.

**9. Hydraulic Design and Construction.**—Reservoirs; dams; conduits; waterways; problems. II; (2). Assistant Professor ENGER

*Prerequisite:* Municipal and Sanitary Engineering 2.

**98. Thesis.**—Investigation or design of an engineering problem. II; (2). Professor TALBOT, Mr. BABBITT

#### Courses for Graduates

Entrance upon graduate work in municipal and sanitary engineering presupposes a full undergraduate curriculum in that subject.

**102. Water Supply Engineering.**—Water supply; general water-works construction; pumps and pumping; design of reservoirs and elevated tanks; water-works operation; valuation of plants. *One to three times a week*; I or II; ( $\frac{1}{2}$  unit or more). Professor TALBOT

**103. Sewerage.**—Design and construction; systems; hydraulics of sewers; run-off. *Once or twice a week*; II; ( $\frac{1}{2}$  unit or more). Professor TALBOT

**106. Water Purification, Sewage Disposal, and General Sanitation.**—The design, construction, and operation of water purification plants and of sewage disposal works; existing plants; comparison of results and cost of construction and operation; water filters and septic tanks; garbage disposal; general sanitation. *Once a week*; II; ( $\frac{1}{2}$  unit or more). Professor TALBOT

**MUSIC**

- JOHN LAWRENCE ERB, F.A.G.O., *Director, University Organist*  
 GEORGE FOSS SCHWARTZ, A.M., B.Mus. *Assistant Professor, Theory and History of Music*  
 CONSTANCE BARLOW-SMITH, *Assistant Professor, Sight Singing, Ear Training, Public School Music*  
 HENRI JACOBUS VAN DEN BERG, *Instructor, Piano*  
 ALBERT AUSTIN HARDING, *Instructor, Wind Instruments, Director of the Band*  
 EDNA ALMEDA TREAT, B.Mus. *Instructor, Piano*  
 EDSON WILFRED MORPHY, *Instructor, Violin*  
 HEBER DIGNAM NASMYTH, *Instructor, Voice*  
 FRANK TATHAM JOHNSON, *Instructor, Voice*  
 BERTHA DAVIS, *Instructor, Voice*  
 MABELLE GENEVIEVE WRIGHT, A.B., B.Mus., *Instructor, Piano*

GRACE SWAN, *Assistant in the Summer Session*

**History and Theory**

- 1-2. **History of Music**.—*I, II; (2).* Assistant Professor SCHWARTZ  
*Prerequisite:* One year of college work
- 3-4. **Theory of Music (Harmony)**.—*I, II; (2).* Assistant Professor SCHWARTZ  
*Prerequisite:* Music 3-4.
- 5-6. **Theory of Music (Harmony)**.—Continuation of 3-4. *I, II; (3).* Assistant Professor SCHWARTZ  
*Prerequisite:* Music 3-4.
- 7-8. **Counterpoint, Canon, and Fugue**.—*I, II; (3).* Assistant Professor SCHWARTZ  
*Prerequisite:* Music 5-6.
- 9-10. **General Analysis**.—*I, II; (2).* Director ERB  
*Prerequisite:* Music 7-8.
- 11-12. **Acoustics**.—*I, II; (1).* Director ERB
- 13-14. **Constructive Listening (Musical Appreciation)**.—*I, II; \*(1).* Director ERB

**Public School Music**

- 21a-21b. **Ear Training, First Year**.—Two hours a week; required of all music students. *I, II; (no credit).* Assistant Professor SMITH
- 22a-22b. **Ear Training, Second Year**.—Two hours a week; required of students in the curriculum in Music in the sophomore year, and of students in the curriculum in Public School Music. *I, II; (1).* Assistant Professor SMITH
- 23a-23b. **Sight Singing, First Year**.—Two hours a week; required of students in the curriculum in Music in the sophomore year, and of students in the curriculum in Public School Music. *I, II; (no credit).* Assistant Professor SMITH

- 24a-24b. **Sight Singing, Second Year**.—Two hours a week; required of students in the curriculum in Music in the junior year, and of students in the curriculum in Public School Music. *I, II; (1).* Assistant Professor SMITH

\*Credit only toward the degree of Bachelor of Music.

**25a-25b.** **Methods of Teaching.**—Elements of theory, eye and ear training, the limitations of the child-voice, selection of material, pedagogical presentations, appreciation work for the high school. (Primarily for students preparing to teach music in the public schools.) *I, II; (4).*

Assistant Professor SMITH

**27a-27b.** **Ensemble.**—*I, II; (1). Time to be arranged.*

### Piano

Mr. VAN DEN BERG, MISS TREAT, MISS WRIGHT

**41a-41b.** **Preparatory Course in Piano, First Year.**—*I, II.* (No collegiate credit).

**41c-41d.** **Preparatory Course in Piano, Second Year.**—*I, II.* (No collegiate credit).

**41e-41f.** **Preparatory Course in Piano, Third Year.**—*I, II.* (No collegiate credit).

**42a-42b.** **Piano, First Year.**—*I, II; (4).*

**43a-43b.** **Piano, Second Year.**—*I, II; (4).*

**44a-44b.** **Piano, Third Year.**—*I, II; (4).*

**45a-45b.** **Piano, Fourth Year.**—*I, II; (4).*

**46a-46b.** **Minor in Piano.**—Taken by freshmen majoring in voice or violin. *I, II; (2).*

**46c-46d.** **Minor in Piano.**—Taken by sophomores majoring in voice or violin. *I, II; (2).*

**46e-46f.** **Minor in Piano.**—Taken by juniors majoring in voice or violin. *I, II; (2).*

**46g-46h.** **Minor in Piano.**—Taken by seniors majoring in voice or violin. *I, II; (2).*

**47a-47b.** **Piano.**—For students from other departments of the university. *I, II; (no credit).*

### Voice

Mr. NASMYTH, Mr. JOHNSON, MISS DAVIS

**51a-51b.** **Preparatory Course in Voice, First Year.**—*I, II;* (no collegiate credit).

**51c-51d.** **Preparatory Course in Voice, Second Year.**—*I, II;* (no collegiate credit).

**51e-51f.** **Preparatory Course in Voice, Third Year.**—*I, II;* (no collegiate credit).

**52a-52b.** **Voice, First Year.**—*I, II; (4).*

**53a-53b.** **Voice, Second Year.**—*I, II; (4).*

**54a-54b.** **Voice, Third Year.**—*I, II; (4).*

**55a-55b.** **Voice, Fourth Year.**—*I, II; (4).*

**56a-56b.** **Minor in Voice.**—Taken by freshmen majoring in piano or violin. *I, II; (2).*

**56c-56d.** **Minor in Voice.**—Taken by sophomores majoring in piano or violin. *I, II; (2).*

**56e-56f. Minor in Voice.**—Taken by juniors majoring in piano or violin. *I, II; (2).*

**56g-56h. Minor in Voice.**—Taken by seniors majoring in piano or violin. *I, II; (2).*

**57a-57b. Voice.**—For students from other departments of the University. *I, II; (no credit).*

### Violin

Mr. MORPHY

**61a-61b. Preparatory Course in Violin, First Year.**—*I, II; (no collegiate credit).*

**61c-61d. Preparatory Course in Violin, Second Year.**—*I, II; (no collegiate credit).*

**61e-61f. Preparatory Course in Violin, Third Year.**—*I, II; (no collegiate credit).*

**62a-62b. Violin, First Year.**—*I, II; (4).*

**63a-63b. Violin, Second Year.**—*I, II; (4).*

**64a-64b. Violin, Third Year.**—*I, II; (4).*

**65a-65b. Violin, Fourth Year.**—*I, II; (4).*

**66a-66b. Minor in Violin.**—Taken by freshmen majoring in piano or voice. *I, II; (2).*

**66c-66d. Minor in Violin.**—Taken by sophomores majoring in piano or voice. *I, II; (2).*

**66e-66f. Minor in Violin.**—Taken by juniors majoring in piano or voice. *I, II; (2).*

**66g-66h. Minor in Violin.**—Taken by seniors majoring in piano or voice. *I, II; (2).*

**67a-67b. Violin.**—For students from other departments of the University. *I, II; (no credit).*

### Violoncello

Mr. SCHWARTZ

**71a-71b. Preparatory Course in Violoncello, First Year.**—*I, II; (no collegiate credit).*

**71c-71d. Preparatory Course in Violoncello, Second Year.**—*I, II; (no collegiate credit).*

**71e-71f. Preparatory Course in Violoncello, Third Year.**—*I, II; (no collegiate credit).*

**72a-72b. Violoncello, First Year.**—*I, II; (4).*

**73a-73b. Violoncello, Second Year.**—*I, II; (4).*

**74a-74b. Violoncello, Third Year.**—*I, II; (4).*

### Organ

Director ERB

Students desiring to take organ will be obliged to pass without conditions the entrance examination in piano.

**81-82. Organ, First Year.**—*I, II; (6).*

**83a-83b, 83c-83d. Organ, Two Years.**—First two years' work in organ taken as a minor by seniors majoring in piano, voice, or violin. *I, II; (2).*

- 84-85. Organ, Second Year.—I, II; (4).  
86-87. Organ, Third Year.—I, II; (4).  
88-89. Organ, Fourth Year.—I, II; (4).

## **Band and Ensemble Work**

- 92a-92b. Band Instruments.—I, II; (no credit).  
94a-94b. Recital Course in Practical Music.—(For seniors in Music  
45a-45b, 55a-55b, 65a-65b, 88-89).  
96a-96b. Band Instrumentation.—I, II; (no credit).  
97a-97b. Band Arranging.—I, II; (no credit).

### **Summer Session Courses**

- S 1. History of Music.—Ancient and medieval music; early church music; polyphonic music; organum descant and Fauxbourdon; the evolution of the oratorio, music-drama, and the beginnings of instrumental music. Collateral reference work. (2). Assistant Professor SMITH

### **Assistant Professor SMITH**

- S 2. High School Music.—Standard vocal and instrumental compositions; chorus singing; theory and methods of teaching. (2).

Assistant Professor SMITH

- S 3. Harmony.—Summary and drill in scales and keys, intervals, triad construction and connection; derivation and figured bass from given melody, harmonization in two clefs. (2). Miss SWAN

Miss SWAN

- S 4. Advanced Course.—Drill in one, two, three, and four part reading; exercise for breath control, enunciation, and phrasing. (1). Miss SWAN

- S 5. Elementary Course.—Music notation; scale structure; ear and eye training; solfeggio. (no credit). Assistant Professor SMITH

PALEONTOLOGY

(See GEOLOGY 1a, 16, 18, 19, 20, 21.)

PHILOLOGY

(See CLASSICS, COMPARATIVE PHILOLOGY, ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

## PHILOSOPHY

(See also PSYCHOLOGY and EDUCATION.)

ARTHUR HILL DANIELS, Ph.D., Professor  
BOYD HENRY BODE, Ph.D., Professor  
QUEEN LOIS SHEPHERD, Ph.D., Instructor  
CARL HERMAN HAESSLER, A.B., Assistant

**Major:** Twenty hours from any courses offered by the department, including Philosophy 1, 2, 3, and 4, and one other advanced course. Six hours in psychology may be counted toward a major in philosophy.

**Minors:** Twenty hours in (a) psychology (at least six additional hours, if psychology is counted toward a major), and one other subject in the following list; or (b) any two subjects in the same group in the following list: (A) economics, history, political science, education, sociology; (B) English, French, German, Greek, Latin; (C) botany, chemistry, mathematics, physics, zoology.

No course in any subject of the above groups may be counted for the minor requirement if it is excluded from the major requirement of its respective department.

**Courses for Undergraduates**

1. **Logic.**—The principles of reasoning; detection of fallacies; evidence. *I or II; (3).* Professor BODE, Dr. SHEPHERD, Mr. HAESSLER

*Prerequisite:* One year of university work.

2. **Introduction to Philosophy.**—Philosophic problems in their relation to the doctrine of evolution and in their bearing on conduct and religion. *II; (3).* Professor BODE, Dr. SHEPHERD, Mr. HAESSLER

*Prerequisite:* Two years of university work.

**Courses for Advanced Undergraduates and Graduates**

9. **Political and Social Ethics.**—Moral principles applied to political and social relations. *I; (2).* Professor DANIELS, Mr. HAESSLER

*Prerequisite:* Two years of university work.

3. **History of Ancient and Medieval Philosophy.**—*I; (3).* Professor DANIELS

*Prerequisite:* Three hours in philosophy.

4. **History of Modern Philosophy.**—From the Renaissance to the present time. *II; (3).* Dr. SHEPHERD

*Prerequisite:* Three hours in philosophy.

7. **Ethics.**—Morality; ethical theory; social and economic problems. *II; (3).* Professor DANIELS

*Prerequisite:* Three hours in philosophy.

11. **Philosophy of Religion.**—God; revelation; inspiration; dogma; prayer; faith; immortality; the problem of evil; the relation of morality and religion. *II; (2).* Professor DANIELS

*Prerequisite:* Senior or graduate standing; six hours in psychology, philosophy, or both.

15. **British Philosophers of the Eighteenth Century.**—Locke, Berkeley, and Hume. *I; (3).* Professor BODE

*Prerequisite:* Philosophy 2 or 3 or 4.

16. **Philosophy of Pragmatism.**—*II; (3).* Professor BODE

*Prerequisite:* Philosophy 15.

18. **Philosophers of the Nineteenth Century.**—Materialism; naturalism; idealism; pragmatism. *I; (3).* Dr. SHEPHERD

*Prerequisite:* Philosophy 2 or 3 or 4.

19. **Religious Thought in the Eighteenth and Nineteenth Centuries.**—*I; (3).* Dr. SHEPHERD

*Prerequisite:* Philosophy 2 or 3 or 4.

**Courses for Graduates**

Students entering upon graduate work in philosophy must have had a general course in the history of philosophy, a course in logic, and a general course in psychology.

103. Seminar in Ethics.—British ethics from Hobbes to Sidgwick.  
*Twice a week; I, II; (1 unit).* Professor DANIELS

107a-107b-107c. History of Philosophy.—(a) Plato and Aristotle.  
*Twice a week; (1 unit).* (b) Descartes, Spinoza, and Leibnitz. *Twice a week; (1 unit).* (c) Kant and Schopenhauer. *Twice a week; (1 unit).* I, II. The subjects for 1915-16 are 107b and 107c. Professor DANIELS

108a-108b-108c. Seminar in Contemporary Philosophy.—(a) Idealism.  
*Twice a week; (1 unit).* (b) Realism and pragmatism. *Twice a week; (1 unit).* (c) The philosophy of Bergson. *Twice a week; (1 unit).* I, II. The subject for 1915-16 is 108a. Professor BODE

### PHOTOGRAPHY

ARTHUR GRENVILLE ELDREDGE, *Instructor*

1. The Principles and Practise of Photography.—Lenses; cameras; plates and films; exposure; development; printing; copying; positives; landscape, architectural, and scientific photography; speed work; color photography. Lectures; demonstrations; each student is required to produce a stated amount of work covering the processes treated. (For advanced students who use photography in connection with their special subjects). II; (*one hour a week, no credit*).

*Prerequisite:* Junior standing and the consent of the instructor.

### PHYSICAL TRAINING FOR MEN

GEORGE A HUFF, *Director*

HARRY LOVERING GILL, *Associate, Track*

RALPH JONES, *Associate, Basket Ball*

ROBERT CARL ZUPPKE, Ph.B., *Associate, Foot Ball*

ROY NEWTON FARGO, B.S., *Director of the Men's Gymnasium*

EDWARD JOHN MANLEY, *Instructor, Swimming*

WALTER ROOKE EVANS, *Instructor, Wrestling and Boxing*

OLAF HAROLD GLIMSTEDT, *Assistant*

ALVIN ROMEISER, *Assistant, in Charge of Fencing*

1-2. Gymnasium Practise.—Two hours' gymnasium drill each week. (Required of freshmen. First semester given in conjunction with 1a below.) I; ( $\frac{1}{2}$ ): II; (1). Mr. FARGO

1a. Personal Hygiene.—Six lectures by the Dean of Men. Required in conjunction with Physical Training 1. I; (*First six weeks*). Dean CLARK

3. Elementary and Intermediate Gymnastics on Heavy Apparatus.—Preparation of men for teaching physical training. Three exercises a week. I; (1).

*Prerequisite:* Physical Training 1-2 and the consent of the instructor.

4. Advanced Physical Training.—(Continuation of course 3.) Three exercises a week, II; (1).

*Prerequisite:* Physical Training 3 and the consent of the instructor.

### Summer Session Courses

#### ATHLETIC COACHING

NOTE: Courses in physical training for men continue through only six weeks. Not more than five credit-hours in physical training may be counted for graduation in any of the colleges of the University.

**S 10. Baseball.**—Batting; base running; fielding each position; team work and coaching; rules; physical condition; indoor practise. Lectures; practical work. (1½). Director HUFF

**S 11. Track and Field Athletics.**—Starting, sprinting, distance running, hurdling, high and broad jumping, pole vaulting, shot putting, hammer throw, and discus; preparing contestants for different athletic events; individual peculiarities; rules; physical condition, including endurance, speed, fatigue, and means of training; promotion, management, and officiating of games and meets. Lectures; practical work. (1½). Mr. GILL

**S 12. Basketball.**—Coaching; passing; goal throwing; dribbling; team play; condition; styles of play used by leading coaches. Lectures; practical work. (1½). Mr. JONES

**S 13. Football.**—*Theoretical*: Rules from the standpoint of coach, players, and officials; offense and defense; generalship and strategy. *Practical*: Training, conditioning, and players' equipment; punting, drop kicking, place kicking, kick off, forward passing; tackling dummy and charging sled; special drills for linemen, ends, and backs; following the ball, interference, team work; fundamental plays, freak plays, signal systems. Lectures; practical work. (1½). Mr. ZUPKE

**S 14. Training.**—Theories of training, massage, treatment of sprains, bruises, etc.; bandaging and first aid. Lectures and practical work. This course should be taken by all who take S 10, S 11, S 12, or S 13. (½).

Mr. GLIMSTED

### PHYSICAL TRAINING FOR WOMEN

LOUISE FREER, A.B., B.S., *Director*

VERNA BROOKS, A.B., *Instructor*

EDITH GRIFFITH OSMOND, A.B., B.S., *Instructor*

ANNA LUE HUGHITT, *Instructor*

CAROLINE RUTH MORRIS, A.B., *Assistant*

ROSA-LEE GAUT, B.Mus., *Assistant*

GERTRUDE EVELYN MOULTON, A.B., *Director in the Summer Session*

**7a-7b. Practise.**—Class work; light gymnastics; gymnastic dancing; games; personal hygiene; corrective work. Required of freshmen. I, II; (1).

Miss FREER, Miss BROOKS, Miss HUGHITT, Miss MORRIS, Miss OSMOND

**8a-8b. Practise.**—(Continuation of 7a-7b. Second year, elective.) I, II; (1). Miss BROOKS, Miss HUGHITT, Miss OSMOND, Miss MORRIS

**9. Hygiene.**—Required of freshmen. I; (1). Acting Dean KYLE

**10a-10b. Teachers' Course.**—(Third year). Theory and practise teaching in the gymnasium and in public playgrounds. I, II. Miss OSMOND

*Prerequisite*: One year of gymnasium work, psychology, or education; registration in Physical Training 7 or 8.

**11a-11b. Teachers' Course.**—(Fourth year). Massage, theory and practise; emergencies (including bandaging); anthropometry, practise work in measurements for physical examinations. I, II. Miss HUGHITT

*Prerequisite*: Physical Training 10.

## Summer Session Courses

**S 1. Methods of Improving Posture and Health; Theory and Practise.**—Corrective work; hygienic work, folk dancing, singing games, and other exercises; play and games; lectures. Miss MOULTON

**S 2. Swimming.**—Games, diving, "stunts." Miss MOULTON

## PHYSICS

ALBERT PRUDEN CARMAN, D.Sc., *Professor*

CHARLES TOBIAS KNIPP, Ph.D., *Associate Professor, Experimental Electricity*

FLOYD ROWE WATSON, Ph.D., *Associate Professor, Experimental Physics*

JAKOB KUNZ, Ph.D., *Associate Professor, Mathematical Physics*

WILLIAM FREDERICK SCHULZ, Ph.D., *Assistant Professor*

ELMER HOWARD WILLIAMS, Ph.D., *Associate*

WILLIAM HENRY HYSLOP, A.M., *Assistant*

OSCAR ALAN RANDOLPH, M.S., *Assistant*

EARLE HORACE WARNER, A.M., *Assistant*

SEBASTIAN KARRER, A.M., *Assistant*

JONAS BERNARD NATHANSON, A.M., *Assistant*

CHARLES FRANCIS HILL, A.B., *Assistant*

PAUL LEVERN BAYLEY, A.M., *Assistant*

CHARLES STEVER FAZEL, A.M., *Assistant*

LLOYD THEODORE JONES, Ph.D., *Instructor in the Summer Session*

## Introductory Courses for Undergraduates

**1a-1b. General Physics.**—Lectures with class-room demonstration; recitations; written exercises. (For sophomores in engineering, mathematics, physics, and chemistry.) *I*; (3); *II*; (2). Professor CARMAN and others

*Prerequisite:* Registration in Physics 3a-3b; freshman mathematics.

**3a-3b. Physical Measurements.**—Laboratory experiments; quizzes in connection with Physics 1a-1b. *I, II*; (2).

*Assistant Professor SCHULZ and others*

*Prerequisite:* Registration in Physics 1a-1b or credit for the same.

**7a-7b. General Physics.**—Lectures, with class-room demonstration; recitations. (For students in arts and science.) *I, II*; (2½).

*Associate Professor WATSON, Dr. WILLIAMS, Mr. KARRER*

*Prerequisite:* Completion of or registration in Mathematics 4; registration in Physics 8a-8b.

**8a-8b. Introductory Laboratory Physics.**—Physical measurement. *I, II*; (2½). Dr. WILLIAMS, Mr. KARRER

*Prerequisite:* Registration in Physics 7a-7b.

**9a-9b. General Physics.**—Lectures, with class-room demonstration; recitations. (For students in architecture.) *I, II*; (2).

*Associate Professor WATSON, Dr. WILLIAMS, Mr. KARRER*

*Prerequisite:* Mathematics 4; registration in Physics 10a-10b.

**10a-10b. Introductory Laboratory Physics.**—Physical measurements. *I, II*; (2). Dr. WILLIAMS, Mr. KARRER

*Prerequisite:* Registration in Physics 9a-9b.

**15. Electricity and Magnetism.**—(For students in non-technical courses who wish a knowledge of electricity and magnetism beyond the course in general physics.) Recitations or lectures; laboratory. Brooks and Poyser's *Electricity and Magnetism. I.*; (3). Associate Professor KNIPP

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

**16. Heat.**—Heat phenomena; mechanical theory of heat; thermodynamics. Laboratory experiments in thermometry, calorimetry, vapor pressure, expansion of bodies, transmission of heat, and mechanical equivalent. *I.*; (3). Associate Professor WATSON

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

**17. Light.**—Reflection, refraction, interference, diffraction, and polarization; optical instruments. Lectures; laboratory. (For students in general physics, but also adapted to those who wish to learn the use of the instruments). Clay's *Treatise on Practical Light. II.*; (3). Assistant Professor SCHULZ

**[18. Teachers' Course.]**—Discussion of text-books, reference books, laboratory manuals, apparatus ordering, and methods of conducting work in physics and of selected topics in advanced general physics. Manipulative work with glass and apparatus. *II.*; (3). (Not given, 1915-16).

*Prerequisite:* A course in general physics, or experience in teaching.]

**23. Sound.**—Sound, its origin, propagation, velocity, interference, and diffraction; vibrations of strings and organ pipes; music and speech. Lectures; recitations; laboratory. *II.*; (3). Associate Professor WATSON

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

**24. Properties of Matter.**—Weight, mass, gravitation, elasticity, viscosity, surface tension, and diffusion. Lectures; recitations; laboratory. Poynting and Thomson's *Properties of Matter*; Watson's *Text-book of Practical Physics. II.*; (3). Dr. WILLIAMS

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

#### Advanced Courses for Undergraduates and Graduates

**4a-4b. Electrical and Magnetic Measurements.**—First semester: Measurement of very high and very low resistances; aperiodic and ballistic galvanometers; electric currents and quantity; comparison of capacities. There is a special section for students of chemistry, including a course of experiments on the measurement of electrolytic resistance, the use of Dolezalek electrometer, of thermo-couples, and of platinum resistance thermometers for measuring temperatures; the determination of the dielectric constants of solids and liquids; and special uses of the potentiometer. Second semester: Absolute determination of capacity; determination of the damping factor of a ballistic galvanometer; circuits containing resistance and self-induction; classical methods for measurement of self and mutual induction; magnetic properties of iron; plotting of curves; determination of hysteresis losses; potentiometers. *I, II.*; (2).

Associate Professor KNIPP, Mr. RANDOLPH, Mr. FAZEL

*Prerequisite:* Physics 1a-1b, 3a-3b, or 7a-7b, 8a-8b and Mathematics 7, 9.

**14a. Introduction to Theoretical Physics.**—Dynamics. Motion, mass, and force; problems from pure and applied physics. Recitations; problems; lectures. Jean's *Theoretical Mechanics. I.*; (3). Professor CARMAN

*Prerequisite:* Physics 1a-1b, 3a-3b, or 7a-7b, 8a-8b; Math. 8 or 7 and 9.

**14b. Introduction to Theoretical Physics.**—Elementary thermodynamics and wave motion; phenomena of heat and of wave energy with calculus methods. Recitations; problems; lectures. *II* (3). Professor CARMAN

*Prerequisite:* Physics 1a-1b, 3a-3b or 7a-7b, 8a-8b; Math. 8 or 7 and 9.

**20. Light.**—Special phenomena; modern theories; reading in texts of Drude, Wood, and Preston. Lectures; recitations. *I*; (2).

Assistant Professor SCHULZ

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Mathematics 7, 9, or 8.

**22. Light-Photometry.**—Photometry; comparison of light sources with standards; determination of reflective power and transmission coefficient; spectrophotometry. Lectures; recitations; laboratory. *I*; \*(2 to 5).

Assistant Professor SCHULZ

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

**[25. Heat.]**—(Advanced laboratory.) Measurement of temperatures by thermocouples, resistance thermometers, and optical pyrometers. *II*; (2). (Not given, 1915-16). Associate Professor WATSON

*Prerequisite:* Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Physics 16 advised.]

**26. Architectural Acoustics.**—Acoustics of auditoriums; common acoustic defects and their cures; transmission of sound through materials; acoustic properties of building materials. Lectures; problems. (For eight weeks only.) *II*; (1). Associate Professor WATSON

*Prerequisite:* Physics 1a-1b, 3a-3b; or 9a-9b, 10a-10b.

**30. Introduction to Theoretical Electricity.**—Electrical and magnetic phenomena with calculus methods. Magnetism, electrostatics, electrolysis, thermoelectricity, electromagnetics, varying currents, alternating currents, units, electromagnetic radiation, conduction through gases, radio-activity and electrons. Lectures, recitations, demonstrations. (For advanced students in physics, chemistry, mathematics, and engineering.) Starling's *Electricity and Magnetism*. *II*; (3). Associate Professor KNIPP

**31a-31b. Special Problems in Advanced Physical Measurements.**—*I, II; \*(2 or 3).* Professor CARMAN and others

**32. Electricity and Magnetism.**—Electrical measurements; self and mutual inductance, and capacity; low resistances; standardization and calibration. *II*; (2). Dr. WILLIAMS

#### Courses for Graduates

The prerequisite for graduate work in physics is a college course in general physics with a year's laboratory course in introductory physical measurements. The student who is to do major work in physics should also have had additional courses in physics or teaching experience, unless the training in his minor subjects, mathematics or chemistry, has been strong and complete, and also a knowledge of French and German sufficient to use references in these languages. The courses named below are those open for candidates for the master's or

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

doctor's degree. A large part of the last year's work of the candidate for the doctor's degree is investigational, along either the experimental or the theoretical side of physics. In addition to these major graduate courses, the courses in elementary dynamics, heat, light, electrical measurements, and introductory electrical theory are arranged with certain additions for graduate credit. The "intermediate" courses on heat, light, and electricity and magnetism may be offered by students making a minor in physics.

[121. **Recent Advances in Physics and the Electron Theory.**—Lectures of a non-mathematical character and experiments on some recent discoveries in physics. *Three hours a week. II; (½ unit).* Not given, 1915-16.

Associate Professor KNIPP, Associate Professor KUNZ

123. **Sound.**—Wave motion; forced vibrations; the velocity and energy relations of sound waves; resonance; vibrations of strains and organ pipes; dissipation of sound into heat. Lectures; recitations. Rayleigh's *Theory of Sound*; Auerbach's *Akustik*; Barton's *Sound*. *Three times a week. II; (¾ unit).*

Associate Professor WATSON

124. **Conduction of Electricity Through Gases.**—Discharge phenomena; production of electrons and ions in a discharge tube; magnetic and electrostatic deflection; the determination of  $e/m$  and  $v$  of the electron for cathode rays, of  $e/m$  for canal-strahlen or positive rays, and experiments with the hot lime cathode; Roentgen rays and the related phenomena of radio-activity. Quantitative experiments. An original problem, in the second semester. *Three times a week; I, II; (1 to 2 units).* Time to be arranged. Associate Professor KNIPP

126. **Physics Colloquium.**—Weekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems in physics, and on investigations in progress in the laboratory. *Once a week; I, II; (¼ to ½ unit).*

127a. **The Electron Theory.**—Radiation; relativity and the electromagnetic emission of light; radiation of the black body; Planck's theory; the constant  $h$ ; photoelectric effect, specific heat, and Roentgen rays. Seminar. *Twice a week; I; (1 unit).*

Associate Professor KUNZ

131. **Investigation of Special Problems.**—Advanced laboratory or design and calculation. *Two to four times a week; I, II; (1 to 2 units).*

Professor CARMAN and others

132. **Mathematical Physics.**—Special phases in theoretical physics.

(a). **Dynamics.**—First Semester: Newton's equations; general methods of integration; potential-theory; potential of the ellipsoid; application to celestial mechanics; principles of least constraint, and of virtual work, of D'Alembert, and of Hamilton; least action in elasticity, hydrodynamics, electrodynamics, and the second principle of thermodynamics; the gyroscope. Second semester: Special problems of hydrodynamics and of electricity. Routh, *Rigid Dynamics*; Appel, *Traite de mecanique rationnelle*. *Three times a week; I, II; (2 units).*

Associate Professor KUNZ

[(b). **Electrodynamics.**—Problems from Jean's *Mathematical Theory of Electricity and Magnetism*; the potential theory; spherical harmonics, conjugate functions, and some theorems of vector analysis; capacities, coefficients of self and mutual induction; absolute electrical measurements and the condenser discharge with its application in wireless telegraphy; Maxwell's theory and its

modifications: relativity and the electromagnetic emission of light. Lectures; collateral reading. Continued in the following year in course 132d. Not given, 1915-16.]

[**(c). Thermodynamics and Kinetic Theory of Matter.**—Elasticity, surface tension, vapor pressure, osmotic pressure, and electromotive forces of galvanic cells; chemical equilibrium; the Nernst theorem with its applications; Carnot's cycle, and the thermodynamic potentials and the derived functions; kinetic theory of gases; review of elementary theorems; transfer of mass, momentum, and energy; Maxwell's theory of the distribution of velocities in a gas; Boltzman's H theory and the connection between entropy and probability and statistical mechanics; radiation; Planck's theory of quanta, and recent applications in specific heat and photoelectricity. Current literature. I, II; (1 to 2 units). Not given, 1915-16.]

[**(d). Theory of Electrical Oscillations and Cylindrical Harmonics.**—Four times a week; I, II; (1 to 2 units). Not given, 1915-16.]

**133. Seminar.**—Three or five times a week; I, II; (1 to 3 units).

Professor CARMAN and others

#### Summer Session Courses

**S 2aI. General Physics, Part I.**—Mechanics; motion; forces and their effects; equilibrium. Kimball's *College Physics*. (1½). Assistant Professor KNIPP, Dr. JONES

*Prerequisites:* Plane geometry and high-school algebra; registration in Physics S 2bI. Plane trigonometry desired.

**S 2bI. Introductory Laboratory Physics, Part I.**—Physical measurements on mechanics, properties of matter. Laboratory to accompany S 2aI. Schulz's *Laboratory Manual*. (1½). Dr. JONES, Mr. BAYLEY

*Prerequisite:* Registration in Physics S 2aI.

**S 2aII. General Physics, Part II.**—Electricity and magnetism. Kimball's *College Physics*. (1½.) Assistant Professor KNIPP, Mr. NATHANSON

*Prerequisite:* See S 2aI.

**S 2bII. Introductory Laboratory Physics, Part II.**—Laboratory to accompany S 2aII. (1½.) Mr. NATHANSON, Mr. BAYLEY

*Prerequisite:* Registration in S 2aII.

**S 2aIII. General Physics, Part III.**—Heat; light; sound. Lectures; demonstrations; recitations. Text: Kimball's *College Physics*. (1½.) Not given, 1915.

*Prerequisite:* Same as S 2aI.]

[**S 2bIII. Introductory Laboratory Physics, Part III.**—Heat; light; sound. Laboratory. Schulz's *Laboratory Manual*. (1½.) Not given, 1915.]

*Prerequisite:* Registration in Physics S 2aIII.]

**S 4. Electrical and Magnetic Measurements.**—Laboratory; recitations; reports. (2). Mr. RANDOLPH

*Prerequisite:* A course in general physics and calculus.

**S 15. Electricity and Magnetism.**—Lectures, recitations; laboratory. Brooks and Poyser, *Magnetism and Electricity*. (1½.). Mr. RANDOLPH

*Prerequisite:* A course in general physics.

**[S 16. Heat.]**—Thermometry, calorimetry, expansion, and vapor pressure. Lectures; demonstrations; recitations; laboratory. Edser's *Heat for Advanced Students*. (1½). Not given, 1915.

*Prerequisite:* A course in general physics.]

**S 17. Light.**—For description see Physics 17 above. (1½.)

Mr. NATHANSON

*Prerequisite:* A course in general physics.

**S 18. Teachers' Course.**—For description see Physics 18 above. (1).

Mr. JONES

*Prerequisite:* A course in general physics, or teaching experience in physics.

**S 19. Problems in General Physics.**—Problems on mechanics, electricity, magnetism, supplementary to courses S 2aI, S 2aII, and S 2aIII. Shearer's *Problems in general physics*. (1).

Mr. RANDOLPH

*Prerequisite:* A course in general physics.

**\*S 127. Electron Theory of Electricity and Matter.**—Modern theories of electricity and matter; applications to the phenomena of physics and chemistry. Lectures; reading; reports. (Open to those who have had a course in general physics, and particularly to those expecting to teach the elements of physics and chemistry.) Three lectures a week. (½ unit).

Assistant Professor KUNZ

**\*S 31. Special Problems in Advanced Physical Measurements.**—Special laboratory problems. (1 or 2). Assistant Professor KNIPP

*Prerequisite:* A course in general physics; calculus.

**\*S 126. Physics Colloquium.**—Lectures on liquid air, x-rays, and cathode rays.

In charge of Assistant Professor KNIPP

**\*S 131. Investigation of Special Problems.**—

Assistant Professor KNIPP, Assistant Professor KUNZ

*Prerequisite:* Registration in the Graduate School.

**S 132. Mathematical Physics.**—Electrodynamics. Lectures; collateral reading. Two times a week; (1 unit). Assistant Professor KUNZ

**S 133. Seminar and Thesis.**—

Assistant Professor KNIPP, Assistant Professor KUNZ

*Prerequisite:* Registration in the Graduate School.

## PHYSIOLOGY

WILLIAM EDWARD BURGE, Ph.D., *Assistant Professor*

JOSEPH HOWARD BEARD, A.M., M.D., *Instructor*

ALMA JESSIE NEILL, A.M., *Assistant*

**Major:** 20 hours made up from any course offered in the department, exclusive of Physiology 4.

**Minor:** 20 hours in bacteriology, botany, chemistry and zoology.

**4. General Physiology, Chemical and Experimental.**—Lectures; demonstrations, recitations; laboratory. I or II; (5).

Assistant Professor BURGE, Dr. BEARD

*Prerequisite:* One semester of university work, including five hours in botany or zoology and five hours in chemistry.

1. **Histology.**—Fundamental mammalian tissues; microscopic anatomy of the organs. Lectures; laboratory. I; (3).

Assistant Professor BURGE, Dr. BEARD

*Prerequisite:* Two years of university work, including five hours in botany or zoology.

8. **Microscopical Anatomy of the Organs.**—Epithelial, connective, muscular, and nervous tissues and their relationships in the different organs of the body. Lectures; laboratory. II; (5).

Assistant Professor BURGE, Dr. BEARD

*Prerequisite:* Two years of university work, including Physiology 1.

2. **Experimental Physiology.**—Nerve and muscle; circulation; respiration; secretion. Lectures; laboratory. II; (5).

Assistant Professor BURGE, Dr. BEARD

*Prerequisite:* Two years of university work, including Physiology 4 and 8.

3. **Undergraduate Thesis.**—(Elective.) Assistant Professor BURGE

5. **Physiology of Nutrition.**—Lectures; demonstrations. II; (2).

Assistant Professor BURGE

*Prerequisite:* Physiology 4.

7. **Physiological Optics.**—Lectures; demonstrations; laboratory. II; (3).

Assistant Professor BURGE

*Prerequisite:* Physics 7a-7b, 8a-8b.

#### Courses for Graduates

100. **Research.**—Once a week; I, II; (1 or 2 units).

*Prerequisite:* Physiology 2 or its equivalent. Assistant Professor BURGE

101. **Journal Club.**—(Required of graduate students.) I, II.

Professor BURGE, Dr. BEARD

*Prerequisite:* Consent of the department.

### POLITICAL SCIENCE

(See also ECONOMICS, HISTORY, and SOCIOLOGY.)

JAMES WILFORD GARNER, Ph.D., *Professor*

JOHN ARCHIBALD FAIRLIE, Ph.D., *Professor*

JOHN MABRY MATHEWS, Ph.D., *Assistant Professor*

RUSSELL McCULLOCH STORY, A.M., *Instructor*

ROBERT EUGENE CUSHMAN, A.M., *Instructor*

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ORREN CHALMERS HOWELL, A.M., *Professor of History, Bowdoin College (Summer Session)*

**Major:** Twenty hours from any courses offered by the department. A major may include three hours of constitutional history (History 4 and 14).

**Minors:** Twenty hours, selected from two of the following subjects: history, economics, law, sociology, philosophy, and education.

#### Courses for Undergraduates

**NOTE:** Courses 1 and 3 give a survey of national, state, and local government in the United States, and should be taken by students specializing in political science.

1. **American Government.**—Development, organization, powers, limitations, and practical working of the national government. *I*; (3).

Professor GARNER, Assistant Professor MATHEWS, Mr. STORY, Mr. CUSHMAN

*Prerequisite:* Thirty hours of university work.

3. **State and Local Government.**—Powers, obligations, and rights of the states in the Federal Union; their formation and admission; state constitutions; organization of state and local government; political methods. (A continuation of course 1; may be taken independently.) *II*; (3).

Professor GARNER, Assistant Professor MATHEWS, Mr. STORY, Mr. CUSHMAN

*Prerequisite:* Thirty hours of university work.

1a. **American Government and Politics.**—National, state, and local government. (Open only to students in the Colleges of Engineering and Agriculture.) *II*; (2). Mr. CUSHMAN

*Prerequisite:* Thirty hours of university work. No credit is allowed for this course if the student has already had or subsequently takes course 1 or 3.

16. **Government of Illinois.**—Constitutional development, organization, and administration of state and local government; legislature; executive; judiciary; state officers and institutions; county, town, and municipal government. (Students in order to count both courses 3 and 16 for full credit must prepare in course 16 a special report on some phase of the government of Illinois.) *I*; (2). Mr. STORY

*Prerequisite:* Thirty hours of university work.

#### Courses for Advanced Undergraduates and Graduates

(At least junior standing required)

4. **Municipal Government.**—The growth of cities; their legal and social position; organization in the United States; mayor and council; commission government; city managers; organization abroad. Lectures; assigned readings; reports. *I*; (3). Mr. STORY

*Prerequisite:* One course in political science or Economics 1.

5. **Constitutional Law of the United States.**—The judicial interpretation of the constitution; judicial power to declare laws unconstitutional; separation of governmental powers; state and national government; rights under the constitution (due process of law, contract); territories and dependencies; national powers of taxation and commerce; jurisdiction of the courts. *I*; (4). Mr. CUSHMAN

*Prerequisite:* Political Science 1.

6. **International Law.**—Development, nature, source, and present status of the law of nations; intervention; war and peace; neutrals; arbitration. Lectures; assigned readings; reports. *I*; (3). Professor GARNER

*Prerequisite:* Graduate or senior standing, or junior standing with six hours of history and five hours of political science.

7. **American Diplomacy.**—The Department of State; the diplomatic service; the treaty making power; methods and traditional principles of the

foreign policy of the United States; diplomatic controversies with foreign powers; the United States as a world power. *II*; (3).

Assistant Professor MATHEWS

*Prerequisite:* Junior standing and Political Science 1 or History 3a-3b.

**9. Principles of Jurisprudence.**—Nature, sources, and classification of law; the Roman and English legal systems; English common law in the United States; statutes and judicial decisions. *II*; (2).

Professor FAIRLIE

*Prerequisite:* Political Science 1 or its equivalent.

**10. Administrative Law in the United States.**—Separation of governmental powers and delegation of legislative power; federal and state administrative organizations; powers of administrative officers; methods of enforcing governmental commands; remedies of the individual against unlawful action of public officials. *II*; (3).

Mr. CUSHMAN

*Prerequisite:* Political Science 5 and junior standing.

**11. Constitutional Aspects of Social and Industrial Problems.**—The police; constitutional limitations on legislation concerning public health and safety; control of public service corporations and combinations of capital and labor. *I*; (3).

Mr. CUSHMAN

**12. National Administration.**—Administrative powers of the President and Congress; executive departments and administrative services of the national government; judicial administration and the relation of the courts to the executive authorities. *I*; (3).

Professor FAIRLIE

*Prerequisite:* Political Science 1.

**13. State Administration in the United States.**—Administrative position of the governor; organization of state administrative departments; administrative disintegration; influence of diffusion of executive power on enforcement of state law; organization and powers of state boards, commissions, and quasi-judicial tribunals; centralization in the administration of taxation, education, and other state functions; methods of control over state administrative officers. *I*; (3).

Assistant Professor MATHEWS

*Prerequisite:* Political Science 3 or its equivalent.

**14. Political Parties and Methods.**—Development, organization, and methods in the United States and Great Britain; recent legislation on primary elections and corrupt practises. *I*; (2).

Professor FAIRLIE

*Prerequisite:* One course in political science.

**18. Legislation in the United States.**—The legislative power; representation; organization, procedure, and practise; bill drafting; reference bureaus; popular law making; tendencies in legislation. *II*; (3).

Mr. STORY

*Prerequisite:* Junior standing and six hours of political science.

**21. British Government.**—Political institutions in the United Kingdom and the British possessions; Crown; Cabinet; House of Commons; House of Lords; party system; courts of law; local government; Crown Colonies and self-governing colonies; recent developments and proposed changes. *I*; (3).

Professor FAIRLIE

*Prerequisite:* Open to graduate students, seniors, and to juniors who have had six hours in political science.

**22. Continental European Governments.**—The political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organizations; legislation and administration; constitutional guaranties for the protection of individual rights. *II; (3).* Professor GARNER

*Prerequisite:* Open to graduate students and seniors, who have had six hours in political science. History 20a-20b and Political Science 21 are recommended.

**28. Problems of Contemporary Politics.**—Domestic and foreign politics: initiative, referendum, and recall; proportional representation; state socialism; immigration; electoral and ballot reform; judicial reform; parliamentary government; the Monroe Doctrine; international arbitration. Individual reports; discussion. *II; (2).*

Mr. STORY

*Prerequisite:* Senior standing and one course in political science.

**34. Municipal Problems.**—Municipal administration in the United States and Europe; municipal organization and relations to the state; municipal ownership and regulation of public utilities; city planning and housing; police and sanitary administration; finances. Lectures; readings; special reports. *II; (3).*

Professor FAIRLIE

*Prerequisite:* Open to graduate students and to undergraduates who have had Political Science 4.

**36a-36b. Thesis Course.**—(For candidates for honors and other seniors doing research work.) *I, II; (2).*

#### Courses for Graduates

**101. History of Political Theories.**—Ancient, medieval, and modern political thought; theories of Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Montesquieu; evolution of American political ideas. (Given in 1915-16 and alternate years. Alternating with course 102.) *Twice a week; I; (1 unit).*

[**102. The Nature of the State.**—Origin, nature, forms, and functions of the state; sovereignty and liberty; citizenship and nationality; constitutions; principles and methods of political organization. Not given, 1915-16. *Twice a week; I; (1 unit).* Professor GARNER]

**103. Seminar in Political Science and Public Law.**—Special problems; reports; discussions; criticism. (The research work of candidates who are writing theses is under the direction of some instructor to whom they report frequently.) *I, II.*

**106. Special Topics in International Law.**—War law; rights and duties of neutrals; contraband; right of search; capture; continuous voyage; transfers of flag; blockades. *Twice a week; II; (1 unit).* Professor GARNER

**112. Special Topics in Public Administration.**—National, municipal, and local administration. *Twice a week; II; (1 unit).* Professor FAIRLIE

**113. Special Topics in State Administration.**—Administrative reorganization; newer functions; centralization and home rule; law enforcement; relations between state, federal, and local agencies; investigation of problems. *Twice a week; II; (1 unit).* Assistant Professor MATHEWS

**Summer Session Courses**

**S 1. American Government.**—For description see Political Science 1. (2½). Mr. STORY

*Prerequisite:* Thirty hours of university work.

**S 3. State and Local Government.**—For description see Political Science 3. (2½). Mr. STORY

*Prerequisite:* Thirty hours of university work.

**S 6. International Law.**—Organization of the diplomatic service; methods of diplomacy; treaties; sovereignty and independence of States; war; neutrals. (Open to graduates and advanced undergraduates.) (2½).

Professor HORMELL

**PSYCHOLOGY**

MADISON BENTLEY, Ph.D., *Professor*

CHRISTIAN ALBAN RUCKMICH, Ph.D., *Associate*

CARL RAHN, Ph.D., *Instructor*

GEROLD CARL WICHMANN, A.B., *Assistant*

ANNA SOPHIE ROGERS, A.M., *Graduate Assistant*

**Major:** Twenty hours chosen from courses announced by the department, except that six hours may be chosen from one or more of the following subjects: Philosophy 1, 2, 3, 4; Physics 1a-1b, 3a-3b, 7a-7b; Zoology 2, 5, 9, 15; and Animal Husbandry 30.

**Minors:** Twenty hours chosen from education, genetics, philosophy, physics, physiology, sociology, and zoology.

**Laboratories**

The departmental laboratories occupy twenty rooms in University Hall. They make provision for research, undergraduate instruction in drill-courses, demonstrations in the lecture-room, the testing of mental capacity and of mental defect, and the study of the animal mind. Besides standard equipment in all branches, the laboratories contain special apparatus for spectroscopic and chronographic methods and for the investigation of memory and association. Provision is made for research in psychological optics and acoustics. The workshop, which is in charge of a skilled mechanician, is equipped for the construction of delicate apparatus and of instruments of precision. The departmental library contains complete files of foreign and American journals and a working collection for experimental and historical study.

Summer Session courses in psychology will be found under EDUCATION.

**1. Introduction to Psychology.**—The facts and laws of consciousness. Lectures; sectional meetings. I; (3).

Professor BENTLEY, Dr. RUCKMICH, Dr. RAHN, and assistants

*Prerequisite:* One year of university work.

**2. General Psychology.**—Mental inheritance, habit, custom, and fashion; psychology and the biological and social sciences; comparative and genetic psychology, the abnormal; applications of psychology to the arts and professions. II; (3).

Professor BENTLEY, Dr. RUCKMICH, Dr. RAHN, and assistants

*Prerequisite:* Psychology 1.

**3. Laboratory Practise (Elementary).**—Experiments in the fields of sensation, feeling, attention, and action. *I* or *II*; (2).

Dr. RUCKMICH and assistants

*Prerequisite:* Psychology 1.

**[4. Laboratory Practise (Intermediate).**—Experiments in memory, association, learning, and thought. *I*; (2). Not given, 1915-16. Dr. RUCKMICH

*Prerequisite:* Psychology 1 and 3.]

**5. Comparative Psychology.**—Mind in animal forms; psychological implications of organic evolution; human and animal minds; criticism of current literature. (Recommended to students who intend to elect advanced courses either in animal psychology or in the study of behavior). Lectures; laboratory. *I*; (2).

Professor BENTLEY, Dr. RAHN

*Prerequisite:* Psychology 1.

**6. Comparative Psychology (Advanced Laboratory).**—Individual studies in animal psychology. *II*; \*(2-4). Professor BENTLEY, Dr. RAHN

*Prerequisite:* Psychology 1 and 5.

**8. Memory and Association.**—Learning, retention, and recall; associative consciousness; methods of experimentation. Lectures; assigned reading; laboratory. *II*; (2).

Dr. RAHN

*Prerequisite:* Psychology 1 and one other course.

**9. Physiological Psychology.**—The structure and functions of the nervous system and the phenomena of human consciousness; psychophysical relationship. Lectures; readings; discussions. *II*; (2).

Dr. RAHN

*Prerequisite:* Psychology 1 and laboratory training in one of the biological sciences.

**10. German Reading.**—Translation into English of a German psychological text. *I*; (1).

Professor BENTLEY

*Prerequisite:* Psychology 1 and an elementary knowledge of German.

**12-13. Minor Problems (Advanced Laboratory).**—Formulation of methods. *I, II*; \*(2-5).

Professor BENTLEY, Dr. RUCKMICH

*Prerequisite:* Psychology 1, 2, 3.

**14. Social Psychology.**—The social consciousness and the collective mind; analysis of conditions; perceptual, ideational, and emotional factors in social consciousness; genetic development of the collective mind as revealed in tradition and institutions. *I*; (2).

Dr. RAHN

*Prerequisite:* Psychology 1 and one other course.

**15. The Psychological Basis of Music.**—(An elementary course). Summary of literature on the origin of music, harmony, melody, rythm, consonance, tonal quality; psychology of appreciation and performance. *I*; (2).

Dr. RUCKMICH

**17. The History of Psychology.**—Lectures; reading. *II*; (2).

Dr. RUCKMICH

*Prerequisite:* Psychology 1, 2, and one other course.

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\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

[19-20. **Systematic Psychology.**—Psychological analysis; elementary processes; sensory and imaginal processes and the simpler complexes. Lectures; essays. (For graduates and advanced undergraduates). *I, II; (3).* Not given, 1915-16.]

Dr. RUCKMICH, Dr. RAHN

*Prerequisite:* The consent of the instructor.]

**21-22. Special Studies.**—Individual investigations, for advanced students, in the form of essay or of experiment. *I, II; (3).*

Dr. BENTLEY, Dr. RUCKMICH, Dr. RAHN

*Prerequisite:* Psychology 1, and one other course.

#### Courses for Graduates

**103. Research.**—Experimental and historical investigations. *I, II; (½ to 2 units).*

Professor BENTLEY, Dr. RUCKMICH, Dr. RAHN

**105. Seminar.**—Discussion of current topics in their historical setting. *Once a week; I, II; (½ unit).*

Professor BENTLEY

#### PUBLIC SPEAKING

(See under ENGLISH LANGUAGE AND LITERATURE.)

#### RAILWAY ADMINISTRATION

(See TRANSPORTATION.)

#### RAILWAY ENGINEERING

EDWARD CHARLES SCHMIDT, M.E., *Professor*

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Professor*

JOHN McBEATH SNODGRASS, B.S., *Assistant Professor, Railway Mechanical Engineering*

ALONZO MORRIS BUCK, M.E., *Assistant Professor, Railway Electrical Engineering*  
 ARTHUR FRANCIS COMSTOCK, C.E., *Associate, Railway Civil Engineering*  
 OTTO STERNOFF BEYER, Jr., M.E., *First Assistant, Engineering Experiment Station*  
 HAROLD HOUGHTON DUNN, M.S., *Assistant, Engineering Experiment Station*

Railway Civil Engineering—Courses 31-51.

Railway Electrical Engineering—Courses 60-68.

Railway Mechanical Engineering—Courses 2-10.

Common to all groups—Courses 25 and 30.

**2. Locomotive Design.**—Calculations and designs of engine and boiler details; current standards and proportions. *I; (3).*

Assistant Professor SNODGRASS

*Prerequisite:* Mechanical Engineering 12, 62; Railway Engineering 6.

**5. Railway Laboratory.**—Locomotive testing; experimental work with electric and steam railway test cars, brakeshoe testing machine, drop testing machine, and air-brake apparatus. *I; (3).*

Assistant Professor SNODGRASS

*Prerequisite:* Mechanical Engineering 12, 62; Railway Engineering 6.

**6. Locomotives.**—Mechanics; performance; design. *II; (4).*

Professor SCHMIDT

*Prerequisite:* Theoretical and Applied Mechanics 21, 29; registration in Mechanical Engineering 12 and 62.

7. Advanced Design.—Problems in locomotive and car design. *II*; (3).

Assistant Professor SNODGRASS

Prerequisite: Railway Engineering 2.

8. Railway Laboratory.—Investigation of train resistance and locomotive tractive effort by the use of the railway test car. Analysis of the results and their application to the problems of tonnage rating. *II*; (2).

Mr. BEYER

Prerequisite: Railway Engineering 5.

9. Seminar.—Current topics; review of railway journals; assigned topics and reports. *I*; (1). Professor SCHMIDT

25. Railway Development.—History and organization of steam and electric railways; statistics; costs. *I*; (3).

Professor SCHMIDT, Assistant Professor SNODGRASS, Assistant Professor BUCK,  
Mr. COMSTOCK

Prerequisite: Open to juniors in railway engineering only.

30. Thesis.—Independent solution of some railway problem or the investigation of some subject. The thesis may be an original design or an original experimental investigation, or the analysis and discussion of facts already in existence. *II*; (3).

Professor SCHMIDT, Assistant Professor SNODGRASS, Assistant Professor BUCK,  
Mr. COMSTOCK

31. Railway Yards and Terminals.—Theory of design; arrangement of grades in gravity yards; problems in yard design. *II*; (3). Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

32. Railway Construction.—(Advanced course.) Design of railway structures; cost analysis; estimates of cost, working drawings, and contracts and specifications for assigned problems. *I*; (3). Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

33. Economic Theory of Railway Location.—Influence of volume of traffic, alignment, and gradient on operating expenses; locomotive and grade problems; relocation of existing lines. *II*; (4). Mr. COMSTOCK

Prerequisite: Civil Engineering 51; Theoretical and Applied Mechanics 20, 21.

34. Railway Maintenance.—Systems; track design; standards and charts; classification of accounts; measuring efficiency; emergency organization. *II*; (4). Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

35. Railway Signaling.—Block and route signaling; systems in use; history; railway accidents. *I*; (1). Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

- 50-51. Seminar.—Current topics; review of journals; assigned topics and reports. *I, II*; (1). Mr. COMSTOCK

**60. Electric Railway Principles.**—Mechanics of traction; train resistance; braking of electric railway trains; methods of solving fundamental electric railway problems. *II; (2).* Assistant Professor BUCK

*Prerequisite:* Theoretical and Applied Mechanics 25; Electrical Engineering 25, 75.

**61. Electric Traction.**—Selection and operation of equipment. (A condensed course for students in railway mechanical engineering and others.) *II; (3).* Assistant Professor BUCK

*Prerequisite:* Theoretical and Applied Mechanics 21 or 25; Electrical Engineering 11, 62, or 25, 75.

**62. Electric Railway Laboratory.**—Tests of electrical machinery used in railway service. *I; (2).* Assistant Professor BUCK

*Prerequisite:* Railway Engineering 60.

**63. Electric Railway Laboratory.**—(A continuation of Course 62). Tests with the electric test car and the dynamometer car to determine train resistance and power consumption. *II; (2).* Assistant Professor BUCK

*Prerequisite:* Railway Engineering 62, 64.

**64. Electric Railway Practise.**—Types of equipment; energy consumption; methods of distribution. *I; (3).* Assistant Professor BUCK

*Prerequisite:* Theoretical and Applied Mechanics 25; Electrical Engineering 26, 76; Railway Engineering 60.

**65. Electric Railway Economics.**—Location and operation; choice of systems; location of power plant and sub-stations; calculation of transmission and distribution of circuits; maintenance of way and of equipment; electrification of steam roads. *II; (4).* Assistant Professor BUCK

*Prerequisite:* Railway Engineering 64.

**66. Electric Railway Machinery.**—Electrical machinery used for railway service; transmission and distribution lines. *I; (3).* Assistant Professor BUCK

*Prerequisite:* Railway Engineering 60.

**67-68. Seminar.**—Current topics; review of journals; assigned topics and reports. *I, II; (1).* Assistant Professor BUCK

#### Courses for Graduates

Entrance upon graduate work in railway engineering presupposes full undergraduate training in that subject.

**102. Locomotive Design.**—Steam pressure; compounding; superheating. *Once a week; I, II; (1 unit).* Professor Goss

**106. Locomotive Operation.**—Train resistance and tractive effort; tonnage ratings. *Once a week; I, II; (1 unit).* Professor SCHMIDT

**108. Electric Railway Practise.**—The design, selection, operation, and maintenance of central station, sub-station, rolling stock, and line equipment. *Once a week; I, II; (1 unit).* Assistant Professor BUCK

**110. Railway Location.**—The effects of location on earning capacity; problems in original location and in the relocation and reduction of grades of existing lines. *Once a week; I, II; (1 unit).* Mr. COMSTOCK

RHETORIC

(See ENGLISH LANGUAGE AND LITERATURE.)

ROMANCE LANGUAGES AND LITERATURE

KENNETH MCKENZIE, Ph.D., *Professor*

\*THOMAS EDWARD OLIVER, Ph.D., *Professor*

JOHN DRISCOLL FITZ-GERALD, II, Ph.D., *Professor, Spanish*

DAVID HOBART CARNAHAN, Ph.D., *Associate Professor*

DAVID SIMON BLONDHEIM, Ph.D., *Assistant Professor*

ARTHUR ROMEYN SEYMOUR, Ph.D., *Associate*

OLIN HARRIS MOORE, Ph.D., *Associate*

CHARLES SERAPHIN CARRY, *Assistant*

LOUIS ALLEN, A.M., *Assistant*

JAMES KESSLER, A.M., *Assistant*

RAFAEL ARCANGEL SOTO, A.B., *Assistant*

ERIC ALLEN DAWSON, A.M., *Assistant*

CINCINNATI GIOVANNI BATTISTE LAGUARDIA, A.B., *Assistant*

HERBERT KING STONE, A.B., *Assistant*

JOHN RAYMOND SHULTERS, A.M., *Assistant*

JANE COULSON WATSON, A.B., *Assistant*

FRENCH

**Major:** 20 hours of French, exclusive of French 1a, 1b, 2a, 2c, 2d, 9a, and 9b.

**Minors:** 20 hours in not more than three of the following subjects: English (excluding Rhetoric 1-2), German, Greek, Italian, Latin, Spanish, history, and philosophy, provided that 8 hours must be taken in one subject other than a Romance language.

ROMANCE LANGUAGES

**Major:** 20 hours in French and one other Romance language, exclusive of French 1a, 1b, 2a, 2c, 2d, 9a, 9b, Spanish 1a, 1b, and Italian 1a, and 1b.

**Minors:** 20 hours in not more than three of the following subjects: English (excluding Rhetoric 1-?), German, Greek, Italian, Latin, Spanish, history, and philosophy, provided that the minor does not include any language contained in the major in Romance languages.

A. FRENCH

Courses for Undergraduates

1a-1b. **Elementary Course.**—Grammar; pronunciation; reading of modern authors; composition; conversation. I, II; (4).

Professor MCKENZIE, Dr. MOORE, Mr. CARRY, Mr. ALLEN, Mr. KESSLER, Mr. DAWSON, Mr. STONE, Mr. SHULTERS

2a-2b. **Modern Prose, Poetry, and Drama.**—Rapid reading of modern authors; advanced syntax and composition. I, II; (4).

Professor OLIVER, Associate Professor CARNAHAN, Assistant Professor BLONDHEIM, Dr. MOORE, Mr. KESSLER, Mr. SHULTERS

*Prerequisite:* French 1a-1b.

\*On leave.

**2c-2d. Second-Year Conversation.**—Mainly classroom work. (Does not count toward a major in French.) *I, II; (1).* Mr. CARRY

*Prerequisite:* French 1a-1b, with a grade of at least 85.

**3a-3b. Intermediate Composition and Conversation.**—Reading; themes; talks upon France and French life. (Conducted entirely in French). *I, II; (2).* Mr. CARRY

*Prerequisite:* French 2a-2b.

**NOTE:** Required of those who are given the recommendation of the department to teach French.

**4a-4b. Advanced Composition and Conversation.**—French life and literature. Idiomatic constructions; syntax; themes. (Conducted entirely in French.) *I, II; (2).* Mr. CARRY

*Prerequisite:* French 3a-3b.

**9a-9b. Masterpieces of Romance Literature in Translations.**—Dante, Petrarch, Boccaccio, Cervantes, Rabelais, Montaigne, Molière, and other writers. (May not be counted toward a major in French). *I, II; (2).* Dr. MOORE

*Prerequisite:* Two years of university work.

**22a-22b. Modern Novel and Drama.**—The novel and drama in France from the beginning of the nineteenth century to the present time. Lectures; reports on collateral reading. *I, II; (2).* Professor FITZ-GERALD

*Prerequisite:* French 2a-2b.

**25. Course for Teachers.**—Methods of teaching French in this country and abroad; actual contact with class-room problems. *I; (2).* Associate Professor CARNAHAN

*Prerequisite:* Twenty-four hours' credit in French, including French 3a-3b.

**28a-28b. Senior Thesis.**—For candidates for honors in French; open to other seniors. *I, II; (1).*

#### Courses for Advanced Undergraduates and Graduates

**10a-10b. Survey of French Literature.**—Special periods and authors. The main currents of French literature from the beginning to the present time. *I, II; (3).* Associate Professor CARNAHAN

*Prerequisite:* French 22a-22b, or 24a-24b.

**17a-17b. Contemporary French Drama.**—The leading French dramatists from 1850 to the present time: Augier, Dumas fils, Becque, Brieux, Bourget, Bernstein, Rostand, Donnay, and others. *I, II; (2).* Professor MCKENZIE

*Prerequisite:* French 22a-22b, or 24a-24b.

**[24b. Seventeenth and Eighteenth Century Dramatists.]**—Corneille, Racine, Molière, Voltaire, Marivaux, Sedaine, Beaumarchais. Lectures; interpretation. *II; (2).* Not given, 1915-16. Professor OLIVER

*Prerequisite:* French 3a-3b, or 22a-22b. (In special cases French 2a-2b, with the consent of the department.) ]

**26a-26b. French Literary Criticism.**—Criticism in antiquity and in the Italian Renaissance; French critics; classicism and romanticism in the seventeenth and nineteenth centuries. *I, II; (2).* Assistant Professor BLONDHEIM

*Prerequisite:* Three years of French, and the consent of the instructor.

**Courses for Graduates**

Candidates for an advanced degree in Romance languages must have a total of at least thirty hours of college work in these languages of which eighteen must be in either French, Italian, or Spanish; with at least twelve hours in French. A candidate must also have had satisfactory training in Latin, and be able to read German prose.

Graduate students who select Romance languages as a first or second minor must have had at least sixteen hours of college work in the language desired and be able to read German prose.

[101. **Old French Epic Literature.**—Critical reading and interpretation of national and courtly epics and collateral study of their history. *Twice a week. II; (1 unit).* Not given, 1915-16. Professor OLIVER]

[102. **Old French Lyric and Prose Literature.**—Critical interpretation of the earlier Old French dramatic, didactic, chronicle and lyric writers. (For students who prefer it, the collateral work may consist of the elements of Old French historical grammar.) *Twice a week; I, II; (1 unit).* Not given, 1915-16. Professor OLIVER]

[103. **Seventeenth Century Prose Writers.**—Lectures on French culture, society, and prose literature of the seventeenth century; the great preachers and moralists; Jansenism and Port Royal; the classic ideals. Collateral readings of the greater masterpieces, with assigned problems for special investigations. *Once a week; I, II; (½ unit).* Not given, 1915-16. Professor OLIVER]

[104. **Eighteenth Century Prose Writers.**—Society, culture, and prose literature of the eighteenth century; the attack upon the classic ideals; growth of the revolutionary spirit; first movements towards romanticism. Readings; collateral study. *Once a week; II; (½ unit).* Not given, 1915-16. Professor OLIVER]

106. **Early French Drama.**—Origins and development to the Renaissance. *Twice a week; I, II; (1 unit).* Associate Professor CARNAHAN

110. **Introduction to Romance Philology.**—Historical phonology and morphology. Linguistic problems of the teacher of French, Italian, and Spanish. *Twice a week; I, II; (1 unit).* Professor FITZ-GERALD

119. **Old French Phonology and Morphology.**—Development of Old French from Vulgar Latin. *Twice a week; I, II; (1 unit).* Assistant Professor BLONDHEIM

120. **French Lexicography.**—Old French word-history. *Once a week; I, II; (½ unit).* Assistant Professor BLONDHEIM

125. **Seminar.**—Research work in preparation for theses. *Twice a week; I, II; (1 unit).* Members of the department

**B. ITALIAN****Course for Undergraduates**

1a-1b. **Elementary Course.**—Grammar; composition; conversation; reading. *I, II; (3).* Professor MCKENZIE

**Course for Advanced Undergraduates and Graduates**

[2a-2b. **Italian Literature.**—Italian writers of the nineteenth century. *I, II; (2).* Not given, 1915-16. Dr. MOORE

*Prerequisite:* Italian 1a-1b.]

**Course for Graduates**

140. Italian Literature of the Thirteenth and Fourteenth Centuries.—Dante, Petrarch, Boccaccio. *Twice a week; I, II; (1 unit).*

Professor MCKENZIE

**C. SPANISH****Courses for Undergraduates**

- 1a-1b. Elementary Course.—Grammar; pronunciation; reading; composition; conversation. *I, II; (4).*

Dr. SEYMOUR in charge; Mr. ALLEN, Mr. SOTO, Mr. STONE, Mr. LAGUARDIA, Miss WATSON

- 2a-2b. Conversation and Composition.—Conversation; composition; reading of modern prose with practical vocabulary. Commercial correspondence. *I, II; (3).*

Dr. SEYMOUR, Mr. Soto

*Prerequisite:* Spanish 1a-1b.

- 3a-3b. Introduction to Spanish Literature.—Rapid reading of modern authors, and of the more important writers of the seventeenth century. *I, II; (3).*

Professor FITZ-GERALD

*Prerequisite:* Spanish 1a-1b.

- 4a-4b. Business Correspondence and Conversation.—Reading of facsimile business correspondence; writing of business letters; conversation. Reports in Spanish on consular and governmental documents. (Conducted in Spanish.) *I, II; (2).*

Dr. SEYMOUR

*Prerequisite:* Spanish 2a-2b.

**Courses for Advanced Undergraduates and Graduates**

- 11a-11b. The Spanish Drama of the Sixteenth and Seventeenth Centuries.—Earlier dramatists; representative plays of Lope de Vega, Calderon, Ruiz de Alarcon, and Triso de Molina. Reports on outside reading. *I, II; (2).*

Dr. SEYMOUR

*Prerequisite:* Spanish 3a-3b.

**Courses for Graduates**

132. The Novela of the Golden Age.—Political and social conditions in Spain from 1560 to 1700; prose fiction of this period; *Don Quixote* and the *Novelas Exemplares* of Cervantes. *Twice a week; I, II; (1 unit).*

Professor FITZ-GERALD

135. The Modern Novel in Spain.—The modern novel in Spain from the middle of the nineteenth century to the present time. The development of the novel in Spain, France, and Italy. Lectures; collateral reading. *Twice a week; I, II; (1 unit).*

Dr. SEYMOUR

- [131. Oldest Monuments of the Spanish Language; Origins of Spanish Poetry.—Historical grammar and paleography; critical interpretation of texts. *Twice a week; I, II; (1 unit).* Not given, 1915-16.]

Professor FITZ-GERALD]

- [133. Origins of the Spanish Novela and Comedia.—Spanish prose fiction drama previous to the Golden Age. *Twice a week; I, II; (1 unit).* Not given, 1915-16.]

Professor FITZ-GERALD]

[134. **The Spanish Ballad.**—Types of the ballad; lectures; collateral reading; reports. *Twice a week; I, II; (1 unit).* Not given, 1915-16.

Dr. SEYMOUR]

**Summer Session Courses**

**FRENCH**

**S 1. Elementary Course.**—Pronunciation, grammar, composition, reading. (4). Mr. CARRY

**S 1a. Elementary Course (continued).**—(2-4).

Associate Professor CARNAHAN

*Prerequisite:* French 1, S1, one year of high-school French, or the consent of the instructor.

**S 2. Modern French.**—Rapid reading; composition, conversation. *Comfort's French Prose Composition; Loti's Pêcheur d'Islande; Merimée's Colomba; Erckman-Chartrian's Le Juif Polonais; Bazin's Les Oberlé; Hugo's Ruy Blas; Scribe's Bataille de Dames.* (3). Associate Professor CARNAHAN

*Prerequisite:* One year of university French or its equivalent.

**S 3. Composition and Conversation.**—Practise in speaking and writing simple French. (1). Mr. CARRY

*Prerequisite:* The approval of the instructor.

**S 8. Modern French Drama.**—Rapid reading of modern authors. Collateral reading. (1). Associate Professor CARNAHAN

*Prerequisite:* Two years of university French or its equivalent.

**\*S 100. Seminar.**—Graduate work for properly qualified students. Associate Professor CARNAHAN

**Spanish**

**S 1. Elementary Course.**—Grammar, reading. (4). Mr. SOTO

*Equivalent:* Spanish 1a.

**S 2. Conversation and Composition.**—For description see Spanish 2a-2b. (1). Mr. SOTO

*Prerequisite:* One year of university Spanish or its equivalent.

**SCANDINAVIAN LANGUAGES AND LITERATURE**

(See GERMANIC LANGUAGES AND LITERATURE.)

**THE SOCIAL SCIENCES**

(See ECONOMICS, HISTORY, POLITICAL SCIENCE, and SOCIOLOGY.)

**SOCIOLOGY**

EDWARD CARY HAYES, Ph.D., *Professor*

JAMES GARFIELD STEVENS, Ph.D., *Instructor*

GORDON WATKINS, A.M., *Assistant*

**Major:** 20 hours from any courses offered in the department.

**Minors:** 20 hours chosen from two or three of the following subjects: history, economics, political science, philosophy, and psychology.

**Courses for Undergraduates**

1. **The Principles of Sociology and Their Application to Present Problems.—I;** (3). Professor HAYES, Dr. STEVENS

*Prerequisite:* Junior standing.

7. **The Social Problems of the Rural Community.—II;** (2).

Professor HAYES

*Prerequisite:* Junior standing.

**Courses for Advanced Undergraduates and Graduates**

2. **Social Control.**—The methods by which society controls the conduct, opinions, and sentiments of its members. *I;* (3). Professor HAYES

*Prerequisite:* Sociology 1.

3. **Social Evolution.**—Modes of social activity among savage, barbarous, and civilized people; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; theory of social evolution and method of progress. *II;* (3). Professor HAYES

*Prerequisite:* Sociology 1.

8. **Charities.**—Evolution of modern organized philanthropy, public and private; causes and prevention of poverty; organization and management of charitable institutions. *I;* (3). Dr. STEVENS

*Prerequisite:* Junior standing and Sociology 1 or Economics 1.

9. **Criminology.**—Nature, causes, and treatment of the criminal; evolution of modern methods of criminal procedure and penology; recent experiments and tendencies. *II;* (3). Dr. STEVENS

*Prerequisite:* Senior standing.

10. **Population.**—Theories and policies of population; Malthus' Principle and its critics; problems in population of the United States; immigration, race-mixture, conditions affecting public health, death-rate, birth rate, marriage, divorce; selective influences at work on the "population type." *I;* (3). Dr. STEVENS

*Prerequisite:* Senior standing and Sociology 1 or Economics 1.

- [11. **Principles of Sociology.**—Principles and teachings of sociology, derived from analysis and classification of the elements that make up the life of a people, types of change to which they are subject, and causes by which they are affected. *I;* (3). (Not given, 1915-16). Professor HAYES

*Prerequisite:* Senior standing.]

- 12a-12b. **The Labor Problem.**—The same as Economics 12a-12b.

Assistant Professor HEILMAN

*Prerequisite:* Economics 1, 3; students whose major subject is sociology and who have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

- [15. **The Family.**—Evolution of the family and marriage; its educational, moral, and political significance at different stages of social development. *II;* (3). Not given, 1915-16.]

14. **Social Statistics.**—Social investigation and research. Social and community surveys. The verification of sociological laws and principles by

the statistical method. Vital statistics and population in the light of data afforded by official publications and special investigations. The statistical method applied to sociology and social problems. II; (3). Dr. STEVENS

*Prerequisite:* Senior standing and Sociology 1 or Economics 1, and, except in special cases, Sociology 10.

**21. Socialism and Social Reform.**—The same as Economics 21.

Assistant Professor HEILMAN

*Prerequisite:* Economics 1, 3; students whose major subject is sociology and who have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

[**20. Social Education.**—Education as a factor in social progress; present day educational policy and organizations in the light of theoretical and applied sociology. II; (3). Not given, 1915-16.]

*Prerequisite:* Senior standing, and Sociology 1 or Psychology 1.]

#### Courses for Graduates

Preparation for graduate work in sociology must include the equivalent of twelve semester hours in the social sciences, of which at least three must be in sociology, and three in the principles of economics. The remainder may be in any combination of these two subjects, or of history and political science.

[**101. Sociological Method.**—Methods of advancing the science of sociology; adaptability to sociological investigation of methods described in Pearson's *Grammar of Science*, Wundt's *Methodenlehre*, zweite abtheilung, Seignobos' *La Méthode Historique Appliquée aux Sciences Sociales*, Bernheim's *Historische Methode*, Spencer's *Study of Sociology*, and Giddings' *Inductive Sociology*. Three times a week; I; (1 unit). Not given, 1915-16.]

**102. The Development of Sociology.**—Reading of sociological works; discussions; lectures. Twice a week; I, II; (1 unit). Professor HAYES

**150. Seminar.**—Detection and statement of problems. Preparation of theses. Twice a week; I, II; (1 or 2 units). Professor HAYES

#### Summer Session Courses

**S 1. Principles of Sociology.**—Lectures; discussions; assigned reading. (2). Professor HAYES

*Prerequisite:* Junior standing or equivalent preparation; should if possible be preceded or accompanied by elementary psychology and the principles of economics.

NOTE: Courses S 1 and S 5 cover the ground of Sociology 1.

**S 5. Charities and Correction.**—Effects, causes, prevention, and treatment of poverty and crime. (2). Professor HAYES

*Prerequisite:* Sophomore standing or equivalent preparation.

**S 7. The Social Problems of the Rural Community.**—(1).

Professor HAYES

#### SPANISH

(See ROMANCE LANGUAGES AND LITERATURE.)

## TRANSPORTATION

ERNEST RITSON DEWSNUP, A.M., Professor

## Courses for Undergraduates

1. Transportation System of the United States.—Development and economic problems of transportation in this country. *I*; (3).

Professor DEWSNUP

*Prerequisite:* Economics 1 and 3.

2. Transportation Policy in Europe and in the United States.—Regulation of railways. *II*; (3).

Professor DEWSNUP

*Prerequisite:* Transportation 1.

7. Railway Organization.—Departments and functions of the American railway; traffic and operating departments; departmental, divisional, and unit systems; foreign railways; railway associations, labor, discipline, and training. *I*; (2).

Professor DEWSNUP

*Prerequisite:* Accountancy 1 and Economics 1, previously or concurrently.

12. Freight Shipment.—Preparation of goods for shipment, freight classifications, class ratings; express and parcel post. *II*; (2).

Professor DEWSNUP

*Prerequisite:* For railway administration students Economics 1, concurrent registration in Economics 3, and credit or concurrent registration in Accountancy 1; for others Economics 1 and 3, Accountancy 1.

13. Railway Traffic Administration.—Passenger traffic management. *I*; (3).

Professor DEWSNUP

*Prerequisite:* Credit or concurrent registration in Transportation 1.

- [17. Railway Terminal Management.—Freight and passenger terminals. *I*; (3). Not given, 1915-16.]

Professor DEWSNUP

*Prerequisite:* Credit or concurrent registration in Transportation 1.]

22. Railway Train Service.—The standard code of train rules; train dispatching; block-signaling practise; time-table construction. *II*; (3).

Professor DEWSNUP

*Prerequisite:* Credit or concurrent registration in Transportation 2.

- [26. The Economics of Railway Construction and Maintenance.—Location and types of construction; maintenance policy of railways in regard to roadway and equipment. *II*; (3). Not given, 1915-16.]

Professor DEWSNUP

*Prerequisite:* Credit or concurrent registration in Transportation 2.]

- 35a-35b. Thesis.—(Only students specializing in railway administration may register in this course.) *I, II*; (2).

Professor DEWSNUP

*Prerequisite:* Senior standing.

## Courses for Graduates

- [101. Railway Rate Policy.—Railway rate making; government regulation. *Twice a week; I; (1 unit)*. Not given, 1915-16.]

Professor DEWSNUP

102. The Significance of the Financial Policy of American Railways.—Capitalization and regulation; rates; physical valuation; inter-railway finance. *Twice a week; II; (1 unit)*.

Professor DEWSNUP

103. The Literature of Railway Economics.—Critical reading, beginning with Dr. Lardner's *Railway Economy* of 1850. Twice a week; I; (1 unit). Professor DEWSNUP

## ZOOLOGY

HENRY BALDWIN WARD, Ph.D., *Professor*

JOHN STERLING KINGSLEY, D.Sc., *Professor*

FRANK SMITH, A.M., *Professor*

CHARLES ZELENY, Ph.D., *Professor*

VICTOR ERNEST SHELFORD, Ph.D., *Assistant Professor*

HARLEY JONES VAN CLEAVE, Ph.D., *Instructor*

HENRY GUSTAV MAY, B.S., *Research Assistant*

BESSIE ROSE GREEN, A.M., *Assistant*

HARRY VIRL HEIMBURGER, A.M., *Assistant*

JESSE LEROY CONEL, A.M., *Assistant*

EDWIN BOOTH POWERS, A.M., *Assistant*

FRANCIS MARSH BALDWIN, A.M., *Assistant*

THOMAS BYRD MAGATH, M.S., *Graduate Assistant*

GEORGE MARSH HIGGINS, B.S., *Graduate Assistant*

RACHEL ANN BAUMGARTNER, A.B., *Graduate Assistant*

JAMES ERNEST KINDRED, A.M., *Graduate Assistant*

ROBERT HILLS KINGMAN, A.B., *Graduate Assistant*

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THOMAS WALTON GALLOWAY, Ph.D., *Professor of Biology in James Millikin University (Summer Session)*

WILLIAM FRANKLIN HENDERSON, A.B., *Instructor in Chemistry in James Millikin University (Summer Session)*

**Major:** 20 hours from any courses offered in the department, excluding Zoology 1, and including Zoology 3, 4, and 5.

**Minors:** 20 hours chosen from two or three of the following subjects: animal husbandry (Animal Husbandry 30), bacteriology, botany, chemistry, entomology, physics, physiology, psychology, paleontology, and physiography.

Courses 1 and 2 constitute an introduction to later work in zoology. In the second year, a student may choose as a line of work either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technique (3), heredity and evolution (5), and current literature (20) are of value for all students. Medical students should take courses 3 and 6 the second year. Those preparing to teach zoology in the high school should take invertebrate morphology (4), field zoology (16, 17), and ecology (9, 11), and a course in general entomology.

### A. ZOOLOGY

#### Courses for Undergraduates

1. **General Zoology.**—Animal biology; structure; function, inter-relations, origin, and development of animal life; generalizations. Lectures; laboratory; quiz work. I or II; (5).

Professor WARD, Assistant Professor SHELFORD, Dr. VAN CLEAVE, and assistants

2. **Vertebrate Zoology and Comparative Anatomy.**—The Chordata; early stages of vertebrate embryology; structure of vertebrate tissues; anatomy

of systems of organs considered in respect to their function, ontogeny, and evolution in the vertebrate series; types of the Chordata. Lectures; laboratory; quiz work. II; (5). Professor KINGSLEY, and assistants

*Prerequisite:* Zoology 1.

**4. Invertebrate Morphology.**—Invertebrate structure and development; biological principles. Laboratory; lectures; demonstrations. II; (3).

Dr. VAN CLEAVE

*Prerequisite:* Zoology 1.

**5. Heredity and Evolution.**—Facts and present views; proofs of organic evolution; probable factors involved. Lectures; demonstrations; assigned reading. II; (2). Professor ZELENY

*Prerequisite:* One year of university work.

**16. Field Ornithology.**—The birds of the vicinity. Identification; food relations; seasonal distribution; migration activities. (Students are advised to provide themselves with opera or field glasses.) Field work; lectures. II; (2). Professor SMITH and assistants

**19a-19b. Advanced Ornithology.**—(Continuation of 16.) Difficult groups of birds; economic and technical literature. I, II; \*(2 to 5).

Professor SMITH

*Prerequisite:* Zoology 16 or equivalent.

**3. Microscopical Technics and Vertebrate Embryology.**—Vertebrate embryo in early stages of development; fixation, embedding, section cutting, staining, and mounting; preparation of material. Lectures; laboratory. I; (3). Professor KINGSLEY and assistants

*Prerequisite:* Zoology 1, 2.

**6. Vertebrate Organogenesis.**—Lectures; assigned readings; laboratory studies on embryos of the chick, dogfish, Amblystoma, and pig. (A continuation of course 3.) II; (3). Professor KINGSLEY and assistants

*Prerequisite:* Zoology 1, 2, 3.

**9. Animal Ecology.**—The relations of animals to their natural environments. Field and experimental work; lectures on the natural history of mammals, birds, reptiles, and amphibians. II; (3). Assistant Professor SHELFORD

*Prerequisite:* One year of zoology or one and one-half years of university work, including Zoology 1.

**11. Experimental Ecology and Geography.**—The physiology of environmental relations; analysis of behavior. World and regional aspects of behavior and ecology; animal distribution as related to climate and vegetation. I; \*(2 or 4). Assistant Professor SHELFORD

*Prerequisite:* One year of zoology and senior standing.

**25-26. Experimental Zoology.**—Experimental embryology; regeneration; heredity; variation; evolution. Laboratory; assigned reading; conference. I, II; (5). Professor ZELENY

*Prerequisite:* Two years of university work, including one year in zoology.

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

**17. Field Zoology.**—Collection, preservation, and identification of common representatives of the lower vertebrates and of the various groups of land and fresh-water invertebrates (excluding insects) in the vicinity; identification work on living and preserved material from larger rivers and lakes; observations on the habits and life histories of selected forms. Field and laboratory work; assigned readings. *I*; (4). Professor SMITH and assistants.

*Prerequisite:* One year in zoology, and senior standing.

**18. Advanced Field Zoology.**—Taxonomic or distributional problems in connection with the local fauna. (A continuation of course 17.) *II*; \*(3 to 5). Professor SMITH

*Prerequisite:* Zoology 17.

**22-23. Morphology of Vertebrates.**—The skeleton and the brain, the cranial nerves, and the eye and ear. Lectures; laboratory work; dissection of types. *I, II*; (4). Professor KINGSLEY

*Prerequisite:* Zoology 1, 2, 3, and 6.

**21a-21b. Introduction to Zoological Research.**—Morphology, life history, or reciprocal relations of invertebrate forms, especially parasites of man and the domestic animals. Laboratory; conferences; assigned reading. *I, II*; \*(2 to 5). Professor WARD

*Prerequisite:* One year in zoology and senior standing.

**20a-20b. Current Literature.**—Presentation and discussion of the results of recent zoological investigation. (Open to all students of zoology; should be taken by those intending to graduate with a thesis.) *I, II*; (1). Professor ZELENY

*Prerequisite:* Three years of university work, including one year in zoology.

**8a-8b. Thesis Investigation.**—Individual work on assigned topics. *I, II*; (5).

Professor WARD, Professor KINGSLEY, Professor SMITH, Professor ZELENY, Assistant Professor SHELFORD

*Prerequisite:* Two years in zoology.

### Courses for Graduates

Students entering upon graduate study in zoology should have two years of undergraduate work in the subject. When chosen as a minor the courses listed for graduates and undergraduates must be preceded by at least one full year's undergraduate work in zoology. Work done at other institutions will be valued on conference with the head of the department.

**102. Vertebrate Morphology.**—Origin of vertebrates; segmentation of the head; morphology of special systems. Lectures; required reading. *Twice a week; I; (½ unit)*. Professor KINGSLEY

[**107. Parasitology.**—Structure and life history of animal parasites; their relations to disease; origin and biological significance of parasitism. Conferences; assigned readings; demonstrations. *Twice a week; I, II; (1 unit)*. Not given, 1915-16. To be given in 1916-17]. Professor WARD

\*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

[109-109a. Physiological Ecology.—The regulatory mechanisms of organisms; neutrality; osmotic pressure; immunity; and temperature in relation to natural environments. Given in 1914-15 and alternate years; not given, 1915-16. II; ( $\frac{1}{2}$  or 1 unit.) Assistant Professor SHELFORD]

110-110a. Economic Ecology.—Fisheries and pollution; insect pests and weather; forestry and conservation. Given in 1915-16 and alternate years. 110, II. Twice a week; ( $\frac{1}{2}$  unit); 110a, assigned reading and reports; II; ( $\frac{1}{2}$  unit). Assistant Professor SHELFORD

111. Experimental Ecology.—The repetition of published experiments in physiology and ecology. The student selects a topic on animal reactions or on the measurement of osmotic pressure, temperature, acidity, or conductivity, with modern apparatus. I, II; ( $\frac{1}{2}$  to 2 units). Assistant Professor SHELFORD

115. Factors of Individual and Racial Development—Experimental embryology; regeneration; heredity; variation; evolution. Twice a week; I, II; (1 unit). Professor ZELENY

117. Faunistic Zoology.—Problems in taxonomy, distribution, and ecology; field work, conference, and lectures. Students have the advantage of the collections, library, apparatus, and operation of the State Natural History Survey at the University. Twice a week; I, II; (1 to 2 units). Professor SMITH

127. Theories of Animal Phylogeny.—Relations of groups of animals; signification of so-called intermediate forms; study of invertebrate larval forms and of theories of descent based on them. Lectures; assigned readings; laboratory. I, II; (1 unit). Given in 1915-16 and in alternate years.

Professor WARD

121. Zoological Problems.—Individual research course. I, II; (1 to 2 units). Professor WARD

122. Vertebrate Morphology.—Individual research course. I, II; (1 to 2 units). Not given, 1915-16. Professor KINGSLEY]

123. Faunistic and Systematic Zoology.—Individual research course. I, II; (1 to 2 units). Not given, 1915-16. Professor SMITH

124. Experimental Zoology.—Individual research course. I, II; (1 to 2 units). Professor ZELENY

125. Animal Ecology and Behavior.—Individual research course. Credit to be arranged. Assistant Professor SHELFORD

### B. HUMAN ANATOMY

1-2. Introduction to Human Anatomy.—The human skeleton; dissection of the dog and of the brain of man. I, II; (3).

*Prerequisite:* Zoology 1, 2, 3, and 6. Professor KINGSLEY and assistants

### Summer Session Courses

S 1. General Zoology.—For description see Zoology 1. (4).

Professor GALLOWAY and Mr. HENDERSON

S 19. Teachers' Course.—The relation of life sciences to other subjects; their educational value; application of the scientific method to the teaching of biology; tests of efficiency in teaching zoology; the values of library, classroom,

field, and laboratory for the high-school course; teaching value of economic aspects of biology, as agriculture; outline of courses for secondary education. Lectures, assigned readings, reports, discussions. (1). Professor GALLOWAY

*Prerequisite:* Open to teachers of zoology, to those having had a course in zoology, or to those taking the course in General Zoology. See Zoology S 27 for practical laboratory and field guidance.

**S 27. Elementary Zoological Methods.**—Laboratory, field work, and discussions. For high-school teachers; use of laboratory and field; collection and identification of animals in the field; cultivation in the laboratory; microscopic mounts; hand sections; microtome sections; staining and mounting, dissections for laboratory demonstration; use of apparatus; charts, diagrams, and illustrative material. (1). Mr. HENDERSON

*Prerequisite:* Open to those who have had a course in zoology or are taking General Zoology. May be taken separately, or as the laboratory portion of S 19, and in connection with it.

**\*S 21. Introduction to Zoological Research.**—Investigation on morphology, life-history, or interrelations of invertebrate animals. Laboratory; literature; conferences; report. Professor GALLOWAY

*Prerequisite:* One year of college work in Zoology and senior standing, or its equivalent.

**S 41. Sex and Education.**—Influence of sex development; biology of sex; effects upon physical, mental, and emotional development; social and moral bearings of sex; instruction in the school. (½). Professor GALLOWAY

*Prerequisite:* Open to teachers.



PART IV  
UNIVERSITY EXTENSION



# UNIVERSITY EXTENSION

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Extension work has not been organized as a separate administrative unit in the University of Illinois. Several departments, however, have initiated activities, both on the campus and in the State at large, which serve to make some of the facilities of the University available to groups of mature persons who are engaged in various industries and professions.

## AGRICULTURE

Each of the departments of the College of Agriculture does extension work and so far as possible provides special men for this purpose. In addition to this, a separate department known as Agricultural Extension, offers courses in the principles and methods of extensive work, (see page 260), conducts extension enterprises that do not deal with technical subjects, and cooperates with the other departments in projecting their work in the State.

Some of the more general extension enterprises are:

(1) A two-weeks course in agriculture, known as the Corn Growers' and Stockmen's Convention, held annually at the College of Agriculture since 1898. The enrollment in this course in 1914 was 1065. The work includes lectures, conferences, and demonstrations in the subjects of stock-judging, milk-testing, farm mechanics, and farm crops. (Omitted in 1915 and 1916 on account of the "foot-and-mouth disease".)

(2) Agricultural-extension schools of a week's duration. About thirty-six such schools were held in different parts of the State during 1914-15.

(3) Demonstrations held in connection with soil-fertility and crop fields throughout the State.

(4) Cooperation, by furnishing teachers and lecturers, with other educational agencies for rural communities, e. g., farmers' institutes, special lecture railway trains, the Boys' State Fair School.

(5) Educational exhibits at fairs and expositions.

(6) School and community excursions to the University.

For the Cooperative Extension Service in agriculture and home economics conducted by the University of Illinois and the United States Department of Agriculture, under the provisions of the Federal Smith-Lever Act of May 8, 1914, see pp. 419-421.

## CERAMIC ENGINEERING

In addition to the regular four-year technical curriculum, the department of ceramic engineering cooperates with the clay and allied industries by offering annually, at Urbana, during the second and third weeks in January, a two-weeks industrial course in the principles underlying the manufacture of clay products, for those who have not the time nor the preparation required for academic studies. The work includes lectures, laboratory work, practise in firing kilns, and informal gatherings for question-asking. A common-school education is sufficient to enable one to do the work of this course. No charge of any kind is made. The number enrolled in January, 1915, was 47; in January, 1916, 25.

### COMMERCE

The University offered, during the week of January 31-February 4, 1916, a short course for business men, designed to meet the needs of both employer and employee. The enrollment was 302.

Instruction was given by the members of the staff of the College of Commerce and Business Administration. Among the subjects treated were commercial law, banking, investments, credits and collections, marketing, accountancy, advertising, and salesmanship. A part of each instruction period was devoted to the discussion of problems that business men particularly are called on to solve. This method was intended to bring to the attention of the members of the different classes the best practises in their respective businesses. During the week three conferences were held: Wednesday, Problems and Functions of Commercial Clubs; Thursday, Retailing; Friday, The Traveling Salesman. Each of these conferences was presided over by a well known business man and every one present was given the opportunity to speak. There were no entrance requirements for this course, and no fees were charged.

### COMMUNITY ADVISER

An officer known as Community Adviser, employed by the University, meets with chambers of commerce, neighborhood associations, and other community organizations, advising with them as to the best means of utilizing whatever interests and impulses may be available at the time for furthering the general welfare.

### EDUCATION

In cooperation with the County Superintendents of Champaign, Piatt, and Iroquois Counties, the department of education held at the University during the week of August 2, 1915, a Demonstration Teachers' Institute. A report of this Institute has been published as a bulletin of the School of Education.

The Department of Education cooperated with the State School Board Association and the State City Superintendents' Association in a meeting of these Associations which was held at the University November 17, 1915, just prior to the High School Conference.

### HIGHWAY ENGINEERING

In January, 1914, the department of civil engineering offered a two-weeks course in highway engineering, primarily for the county superintendents of highways appointed under the Tice road law. One hundred ninety-one persons, including sixty-three of the sixty-six county superintendents then appointed, were enrolled. Addresses were made by members of the technical staff of the State Highway Commission, members of the staff of the department of civil engineering of the University, the state engineers of several adjoining states, and other prominent engineers.

A similar but more advanced course was given in January, 1916. This course covered the design and construction of roads, pavements, culverts, and bridges of the different materials used in modern practise and adapted to conditions in Illinois. The lectures were illustrated by practical tests of materials and by inspection trips wherever possible. The attendance in 1916 was 103.

**COOPERATIVE EXTENSION SERVICE**

**University of Illinois and United States Department of Agriculture Under  
the Smith-Lever Act**

**EUGENE DAVENPORT, M.Agr., LL.D., DIRECTOR OF AGRICULTURAL EXTENSION  
SERVICE**

**Agriculture**

WALTER FREDERICK HANDSCHIN, B.S., *Vice-Director of Extension Service, State Leader of County Advisers*

GEORGE NELSON COFFEY, Ph.D., *Assistant State Leader*

JAMES HENRY GREENE, M.S., *State Leader in Junior Extension*

HAROLD CLAYTON M CASE, B.S., *Assistant in Farm Management Demonstration*

**Department Specialists***Agronomy*

CLARENCE CHESTER LOGAN, B.S.

*Animal Husbandry*

DANIEL OTIS BARTO, B.S.

WILLIAM HERSCHEL SMITH, M.S.

*Dairy Husbandry*

WILLIAM TRUMAN CRANDALL, M.S.

WILLIAM WODIN YAPP, M.S.

WILLIAM BARBER NEVENS, B.S.

*Horticulture*

BETHEL STEWART PICKETT, M.S.

ALFRED JOSEPH GUNDERSON, B.S.

**County Advisers**

	County
WILLIAM GEORGE ECKHARDT, B.S.....	De Kalb
JOHN S. COLLIER, A.B.....	Kankakee
ROY C. BISHOP, B.S.....	Livingston
DELOS LAWRENCE JAMES, B.S.....	McHenry
JEROME EDWARD READHIMER, B.S.....	Kane
EDWARD B. HEATON, B.S.A.....	Du Page
ERNEST THOMPSON ROBBINS, B.S.....	Tazewell
FRANK CRAVENS GRANNIS, B.S.....	Will
HENRY TRUITT, B.S.....	Peoria
CHARLES HUBERT OATHOUT, B.S.....	Champaign
ALBERT M. TENEYCK, M.S.....	Winnebago
LEWIS W. WISE, B.S.....	Iroquois
CHARLES JUDSON MANN, B.S.....	Bureau
IRA SANFORD BROOKS, B.S.....	LaSalle
FRANK H. DEMAREE, M.S.....	Grundy
EARL W. RUSK, B.S.....	Adams
*A. M. WILSON.....	Hancock
DAVID O. THOMPSON, B.S.....	McLean
FRANK D. BALDWIN, B.S.....	Mason

\*Mr. Wilson, of Hancock County, is employed locally as county adviser, but is not on the Smith-Lever fund.

Under the provisions of the Smith-Lever Act, approved by the President of the United States on May 8, 1914, and the terms of its acceptance by the State of Illinois, the University becomes cooperatively responsible for a system of demonstration service designed to combine the results of scientific discovery with the most approved practise on the farms and in the households of the State.

A further cooperative relation has been established by the Department of Agriculture whereby the University undertakes to become jointly responsible for certain extension work which the department is conducting out of its own funds. This cooperative work consists of the following:

- (1) Cooperation with county farm bureaus in the employment of agricultural advisers.
- (2) Cooperation with local associations in home-economics demonstrations.
- (3) Employment of extension specialists in agriculture and home economics as special advisers in the field.
- (4) Cooperation with the United States Department of Agriculture in its extension activities:
  - a. In support of county advisory work
  - b. In farm management demonstrations
  - c. In junior extension

### **Home Economics**

ISABEL BEVIER, Ph.M., *Vice-Director of Extension Service in Home Economics*

MAMIE BUNCH, B.S., *State Leader in Home Economics Extension*

OLIVE PERCIVAL, B.S., *Assistant in Home Economics Extension*

FANNY M BROOKS, A.B., *Assistant in Home Economics Extension*

GRACE LINDER, A.B., *Assistant in Home Economics Extension*

FREDERICK JACKSON BLACKBURN, B.S., *Assistant in Home Economics Extension*

The service in home economics may be classified as follows:

**1. Correspondence.**—Numerous requests come from individuals and clubs for help in solving some problem of preparing food, planning a house, or feeding a child, or in preparing topics for club study. All such requests receive careful attention.

**2. Service for Organizations.**—This includes demonstrations and addresses before farmers' institutes, federated or local clubs, parents' and teachers' associations, the State Fair School, or other groups of people. In 1914-15, 117 such organizations were served, reaching 11,905 people.

**3. The School for Housekeepers.**—This is held annually, at Urbana, during the last two weeks in January. It offers instruction in food, clothing, and shelter, and provides an opportunity for the discussion of some of the fundamental problems of home life and management. The attendance has increased during the past six years from 45 to 480. No fees are charged in connection with this school.

**4. Movable Schools.**—The department of household science will, in so far as possible, provide instruction on request for a movable school in any community which is sufficiently interested to pay the local expenses (hire of hall, etc.) and the traveling and living expenses for the week of one or two instructors. During the year 1914-15, forty-seven movable schools were held in the State, with an enrollment aggregating 4289. Fifteen of these were two-instructor schools, and thirty-two were one-instructor schools.

**5. Demonstration Car.**—This car is equipped with a variety of appliances for the home and is accompanied by two demonstrators who explain the purpose of the equipment and demonstrate its use.

#### Program for a Movable School with One Instructor

Monday	2:00—4:00	Lecture: Food and its functions. Exhibit showing relative values of foods.
Tuesday	2:00—4:00	Lecture: Foods containing nitrogen. Demonstration of milk, egg, cheese, or vegetable protein dishes.
Wednesday	2:00—4:00	Lecture: Meats and meat substitutes. Demonstration of various modes of preparation.
Thursday	2:00—4:00	Lecture: Carbohydrate foods. Demonstration of breads or cereals and starchy vegetables.
Friday	2:00—4:00	Lecture: Water and mineral salts in the diet. Demonstration of salads or a balanced meal.

#### Program for a Movable School with Two Instructors

##### Health and Home Problems

Monday	1:30	Domestic science in its various relations to the home.
	2:30	Demonstration: The bed room prepared for the sick.
Tuesday	10:00	Essentials in home decoration.
	11:00	First aid (For camp fire girls).
	1:30	Fabrics in their relation to home uses.
	2:30	Demonstration: Invalid cookery.
Wednesday	10:00	Home sanitation.
	11:00	Selection and care of clothing.
	1:30	First aid to mothers.
	2:30	Planning meals—Food values illustrated by charts and exhibits.
Thursday	10:00	Helpful devices for home care of the sick.
	11:00	Tissue building foods.
	1:30	Personal hygiene.
	2:30	Demonstration: Dishes rich in tissue builders.
Friday	10:00	Carbohydrates and fats in the diet.
	11:00	The dress, care, and feeding of infants.
	1:30	Demonstration of dishes supplying water and mineral salts to the diet.
	3:30	Health laws and state aids.

#### Single Lectures

Any one of the following list of subjects will be treated in a single lecture:

- The care of food in the home.
- The planning of meals.
- The cost of living.
- Infant foods and feeding.
- Food for the child.
- The composition and cooking of meals.
- The use of vegetables as food.
- The lunch basket.
- Selection of textiles for the home.
- Suggestions for home dressmaking—use of patterns.
- Color and furnishing and their relation to interior decoration.
- The well dressed woman.
- Planning the farm house.
- The bedroom and its furnishings.
- The dining room and its appointments.
- Household science and the home.
- Essentials and non-essentials in good housekeeping.
- How to improve our homes.
- Appliances in the home.
- System in housekeeping.



PART V  
EXPERIMENT STATIONS AND OTHER  
SCIENTIFIC BUREAUS



# THE AGRICULTURAL EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

## STAFF\*

EUGENE DAVENPORT, M.Agr., LL.D., *Director*

CYRIL GEORGE HOPKINS, Ph.D., *Vice-Director*

THOMAS JONATHAN BURRILL, Ph.D., LL.D., *Professor of Botany, Emeritus*

STEPHEN ALFRED FORBES, Ph.D., *Consulting Entomologist*

†DONALD MCINTOSH, V.S., *Consulting Veterinarian*

HENRY LEWIS RIETZ, Ph.D., *Statistician*

ROY HANSEN, B.S., *Assistant in Nitrogen Fixation Research*

ANNA CUSHMAN GLOVER, *Secretary*

FLORENCE E SMITH, *Editorial Assistant*

### In Agronomy

CYRIL GEORGE HOPKINS, Ph.D., *Chief, Agronomy and Chemistry*

JEREMIAH GEORGE MOSIER, B.S., *Chief, Soil Physics*

LOUIE HENRIE SMITH, Ph.D., *Chief, Plant Breeding*

✗ ROBERT STEWART, Ph.D., *Associate Chief, Soil Fertility*

✓ WILLIAM LEONIDAS BURLISON, Ph.D., *Associate Chief, Crop Production*

✗ AXEL FERDINAND GUSTAFSON, M.S., *Assistant Chief, Soil Physics*

ERNEST VAN ALSTINE, B.S., *Assistant Chief, Soils Laboratory*

JOSEPH PAUL AUMER, B.S., *Associate, Chemistry*

FREDERICK CHARLES BAUER, B.S., *Associate, Soil Fertility*

WALTER BYRON GERNERT, Ph.D., *Associate, Plant Breeding*

SIDNEY VIEL HOLT, B.S., *Associate, Soil Physics*

EZEKIEL EDWARD HOSKINS, B.S., *Associate, Soil Fertility*

CLARENCE CHESTER LOGAN, B.S., *Associate, Soils Extension*

WARD HANSON SACHS, B.S., *Associate, Chemistry*

HENRY CLYDE WHEELER, B.S., *Associate, Soil Physics*

JOHN EZRA WHITCHURCH, B.S., *Associate, Soil Fertility*

ALBERT LEMUEL WHITING, Ph.D., *Associate, Soil Biology*

WILBUR ROY LEIGHTY, B.S., *First Assistant, Chemistry*

FRANK WILLIAM GARRETT, B.S., *First Assistant, Soil Fertility*

FREDERICK MARTIN WILLIAM WASCHER, B.S., *First Assistant, Soil Physics*

FORREST ADDISON FISHER, B.S., *First Assistant, Soil Physics*

ORR MILTON ALLYN, B.S., *First Assistant, Crop Production*

EDWARD HARVEY WALWORTH, B.S., *Assistant, Crop Production*

EDWARD FRITCHOFF TORGERSON, B.S., *Assistant, Soil Physics*

HOWARD JOHN SNIDER, B.S., *Assistant, Soil Fertility*

WARREN RIPPEY SCHOONOVER, B.S., *Assistant, Soil Biology*

HARRY CHARLES GILKERSON, B.S., *Assistant, Soil Fertility*

\*The Station Staff includes only those scientific workers who have been recommended by the President and appointed by the Board of Trustees.

†Retired September 1, 1915. Deceased September 6, 1915.

GEORGE EDWARD GENTLE, B.S., *Assistant, Soil Physics*  
 HARRISON FRED THEODORE FAHRNKOPI, B.S., *Assistant, Soil Fertility*  
 ORLAND I ELLIS, B.S., *Assistant, Soil Physics*  
 ROBERT WILLIAM DICKENSON, B.S., *First Assistant, Soil Physics*  
 HENRY AUGUST DE WERFF, B.S., *Assistant, Soil Physics*  
 CLINTON B CLEVINGER, M.S., *Assistant, Chemistry*  
 FRANK ARCHIBALD WYATT, Ph.D., *Assistant, Soil Fertility*  
 ARTHUR MAXWELL BRUNSON, B.S., *Assistant, Plant Breeding*  
 FRIEDEL CHAPIN RICHEY, B.S., *Assistant, Soil Physics*  
 ALFRED THORPE MORISON, B.S., *Assistant, Crop Production*

*In Animal Husbandry*

HERBERT WINDSOR MUMFORD, B.S., *Chief*  
 HARRY SANDS GRINDLEY, D.Sc., *Chief, Animal Nutrition*  
 WALTER CASTELLA COFFEY, M.S., *Chief, Sheep Husbandry*  
 JOHN A DETLEFSEN, D.Sc., *Assistant Chief, Genetics*  
 HENRY PERLY RUSK, M.S.A., *Assistant Chief, Beef Cattle*  
 JAMES LLOYD EDMONDS, B.S., *Assistant Chief, Horse Husbandry*  
 WALTER FREDERICK HANDSCHIN, B.S., *Assistant Chief, Farm Management*  
 WALTER EDWARD JOSEPH, Ph.D., *Associate, Animal Husbandry*  
 SLEETER BULL, M.S., *Associate, Animal Nutrition*  
 HAROLD HANSON MITCHELL, Ph.D., *Associate, Animal Nutrition*  
 WILLIAM HERSCHEL SMITH, M.S., *Associate, Animal Husbandry Extension*  
 WILBUR JEROME CARMICHAEL, B.S., *First Assistant, Animal Husbandry*  
 JAMES BURTON ANDREWS, B.S., *First Assistant, Animal Husbandry*  
 ELMER ROBERTS, B.S., *First Assistant, Genetics*  
 CHARLES IVAN NEWLIN, M.S., *First Assistant, Animal Husbandry*  
 ROSCOE RAYMOND SNAPP, B.S., *First Assistant, Animal Husbandry*  
 MARY HELEN KEITH, B.S., A.M., *Assistant, Animal Nutrition*  
 CLAUDE HARPER, B.S., *Assistant, Animal Husbandry*  
 ROY HAROLD WILCOX, B.S., *Assistant, Animal Husbandry*  
 JAMES WILBUR WHISENAND, B.S., *Assistant, Animal Husbandry*  
 EARL KIRKWOOD AUGUSTUS, B.S., *Assistant, Animal Husbandry*  
 MAYNARD ELMER SLATER, B.S., *Assistant, Animal Nutrition*  
 JOSEPH ROSSITER ZIESENHEIM, B.S., *Assistant, Animal Nutrition*  
 JOHN BENJAMIN RICE, B.S., *Assistant, Animal Husbandry*  
 LAWRENCE EMERSON THORNE, B.S., *Assistant, Agricultural Statistics and Genetics*  
 WILLIAM GARFIELD KAMMLADE, B.S., *Assistant, Animal Husbandry*

*In Dairy Husbandry*

HARRY ALEXIS HARDING, Ph.D., *Chief, Dairy Bacteriology*  
 \*WILBER JOHN FRASER, M.S., *Chief, Dairy Farming*  
 NELSON WILLIAM HEPBURN, M.S., *Assistant Chief, Dairy Manufactures*  
 MARTIN JOHN PRUCHA, Ph.D., *Assistant Chief, Dairy Bacteriology*  
 LEROY LANG, M.S., *Associate, Dairy Manufactures*  
 WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*  
 RAY STILLMAN HULCE, M.S., *Associate, Milk Production*  
 HARRISON AUGUST RUEHE, B.S., *Associate, Dairy Manufactures*  
 EDWARD FREDERICK KOHMANN, Ph.D., *Associate, Dairy Chemistry*

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\*Absent on leave.

FRANK ASHMORE PEARSON, B.S.A., *First Assistant, Dairy Husbandry*  
WILLIAM WODIN YAPP, M.S., *First Assistant, Dairy Husbandry*  
HARRY MONTGOMERY WEETER, A.B., *Assistant, Dairy Husbandry*  
FRANK TURNER, B.S., *Assistant, Dairy Husbandry*  
WILLIAM BARBOUR NEVENS, B.S., *Assistant, Dairy Husbandry*  
PAUL WILLIAM ALLEN, M.S., *Assistant, Dairy Bacteriology*  
HAROLD KIRK RULISON, B.S., *Assistant, Dairy Husbandry*  
WILLIAM HAROLD CHAMBERS, B.S., *Assistant, Dairy Bacteriology*  
LEIGHTON J TRUE, B.S., *Assistant, Dairy Manufactures*  
HAROLD GOSSE, B.S., *Assistant, Dairy Husbandry*

*In Horticulture*

JOSEPH CULLEN BLAIR, M.S.A., *Chief, Horticulture*  
CHARLES SPENCER CRANDALL, M.S., *Chief, Plant Breeding*  
\*JOHN WILLIAM LLOYD, M.S., *Chief, Olericulture*  
HERMAN BERNARD DORNER, M.S., *Assistant Chief, Floriculture*  
BETHEL STEWART PICKETT, M.S., *Assistant Chief, Pomology*  
ERNEST WINFIELD BAILEY, M.S., *Assistant Chief, Plant Breeding*  
OSCAR S WATKINS, B.S., *Associate, Horticultural Chemistry*  
WARREN ALBERT RUTH, A.M., *Associate, Horticultural Chemistry*  
CHARLES ELMER DURST, M.S., *Associate, Olericulture*  
SIMEON JAMES BOLE, A.M., *Associate, Pomology*  
JOHN JOSEPH GARDNER, M.S., *Associate, Pomology*  
IRA DENT ALLISON, B.S., *Associate, Horticulture*  
FRED WEAVER MUNCIE, Ph.D., *Associate, Floricultural Chemistry*  
GEORGE LEO PELTIER, Ph.D., *Associate, Floricultural Pathology*  
ALFRED JOSEPH GUNDERSON, B.S., *First Assistant, Pomology*  
WILLIAM SANFORD BROCK, B.S., A.B., *Assistant, Pomology*  
WILLIAM KING PALMER, B.S., *First Assistant, Floriculture*  
JAMES HUTCHINSON, *Assistant, Floriculture*  
HOWARD DEXTER BROWN, B.S., *Assistant, Olericulture*  
AUGUST GEORGE HECHT, B.S., *Assistant, Floriculture*  
DUANE TAYLOR ENGLIS, A.M., *Assistant, Floricultural Chemistry*  
EDWARD GEORGE LAUTERBACH, B.S., *Assistant, Floricultural Pathology*  
EDWARD ALBERT SCHWING, B.S., *Assistant, Plant Breeding*  
JULIA ALBERTA HARPER, A.B., *Editorial Assistant*

By an act approved March 2, 1887, the national government appropriated \$15,000 a year to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the *Agricultural Experiment Station of the University of Illinois* was founded in 1888 and placed under the direction of the Trustees of the University; a part of the University farm, with buildings, was assigned for its use.

The federal grant has since been increased to \$30,000 a year. This is supplemented by state appropriations which make an aggregate fund of nearly a quarter of a million dollars devoted wholly to research in agriculture.

\*Absent on leave.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement and the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Between forty and fifty fields and orchards are operated in various portions of the State for the study of local problems, and assistants are constantly on the road to conduct experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 40,000 and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

# THE ENGINEERING EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Director*

CLARENCE STANLEY SALE, B.S., *Assistant to the Director*

THE HEADS OF THE DEPARTMENTS OF THE COLLEGE OF ENGINEERING

### *Special Investigators*

HERBERT FISHER MOORE, M.M.E., *Research Professor of Engineering Materials in the Department of Theoretical and Applied Mechanics*

SAMUEL WILSON PARR, M.S., *Professor of Applied Chemistry in the Department of Chemistry*

WILLIS APPLEFORD SLATER, M.S., C.E., *Research Assistant Professor of Applied Mechanics in the Department of Theoretical and Applied Mechanics*

\*STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Assistant Professor of Mining Research in the Department of Mining Engineering*

TRYGVE D YENSEN, M.S., E.E., *Research Assistant Professor of Electrical Engineering*

ALONZO PLUMSTED KRATZ, M.S., *Research Associate in the Department of Mechanical Engineering*

HARRISON FREDERICK GONNERMAN, M.S., *First Assistant in the Department of Theoretical and Applied Mechanics*

LEROY ALONZO WILSON, M.E., M.M.E., *First Assistant in the Department of Mechanical Engineering*

OTTO STERNOFF BEYER, Jr., M.E., *First Assistant in the Department of Railway Engineering*

HAROLD HOUGHTON DUNN, M.S., *Assistant in the Department of Railway Engineering*

### *Research Fellows*

JASPER OWEN DRAFFIN, B.S., *Theoretical and Applied Mechanics*

WALTER ARTHUR GATWARD, B.S., *Electrical Engineering*

LESTER CLYDE LICHTY, B.Sc., *Mechanical Engineering*

WILLIAM PENN LUKENS, A.B., *Mechanical Engineering*

EVERETT GILLHAM YOUNG, B.S., *Railway Engineering*

HARRY RHEINHARDT FRITZ, E.E., *Electrical Engineering*

FRANK ALLEN KIRKPATRICK, B.S., *Ceramic Engineering*

LOUIS J LARSON, B.S., C.E., *Theoretical and Applied Mechanics*

WILLIAM ASBURY MANUEL, A.B., M.S., *Chemistry*

LOUIS AUBREY MYLIUS, B.S., E.M., *Mining Engineering*

STETFLAN FUJITA TANABE, B.S., M.S., *Physics*

BENITO RENE ORDONEZ, B.S., *Railway Engineering*

\*Resigned, November 30, 1915.

RICHARDS LAURENCE TEMPLIN, B.S., *Theoretical and Applied Mechanics*  
CAMILLO WEISS, Graduate of Kaiserl. Koenigl. Technische Hochschule,  
Vienna, *Civil Engineering*

The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers and to the manufacturing, railway, mining, and industrial interests of the State and the country.

The control of the Station is vested in the heads of the several departments of the College of Engineering. These constitute the Station Staff, and, with the Director, determine the character and extent of the investigations to be undertaken.

Up to the present time eighty-one bulletins of value to engineering science have been published. The experiments have related chiefly to tests of high-speed tool steels; the resistance of tubes to collapse; the holding power of railroad spikes; the effect of scale on heat transmission; roof trusses; base and bearing plates in columns and beams; stresses in chain links; extensions of the Dewey decimal system of classification; tests of electric lamps; lighting country homes by private electric plants; street lighting; high steam pressures in locomotive service; rate of formation of carbon monoxide in gas producers; fuel tests; the weathering of coal and the spontaneous combustion of coal; thermal conductivity of fireclay; heat transmissions; freight train resistance; tests of a suction gas producer; tests of concrete; reinforced concrete beams and columns; tests of cast-iron and reinforced concrete culvert pipe; tests of brick columns and terra cotta block columns; tests of timber beams; tests of built-up columns under load; tests to determine the resistance to flow through locomotive water columns; tests of nickel-steel riveted joints; strength of rolled zinc; inductance of coils; mechanical stresses in transmission lines; starting currents of transformers; superheated steam in locomotive service; a new analysis of the cylinder performance of reciprocating engines; effects of cold weather upon train resistance and tonnage rating; coking of coal at low temperatures; characteristics and limitations of the series transformer; electron theory of magnetism; entropy-temperature and transmission diagrams for air; tests of reinforced concrete buildings under load; the steam consumption of locomotive engines from indicator diagrams; properties of saturated and superheated ammonia vapor; reinforced concrete wall footings and column footings; strength of I-beams in flexure; coal washing in Illinois; mortar-making qualities of Illinois sands; bond between concrete and steel; magnetic and other properties of electrolytic iron melted in vacuo; acoustics of auditoriums; tractive resistance of a 28-ton electric car; thermal properties of steam; analysis of coal with phenol as solvent; the effect of boron upon the magnetic and other properties of electrolytic iron melted in vacuo; a study of boiler losses; the coking of coal at low temperatures with special reference to the properties and composition of the products; wind stresses in the steel frames of office buildings; and influence of temperature on the strength of concrete.

# THE STATE LABORATORY OF NATURAL HISTORY

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EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Director*

CHARLES ARTHUR HART, *Systematic Entomologist*

ROBERT EARL RICHARDSON, A.M., *Biologist, in charge of Biological Station*

VICTOR ERNEST SHELFORD, Ph.D., *Biologist, in charge of Research Laboratories*

MARY JANE SNYDER, *Secretary*

CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Librarian*

In 1885 the General Assembly passed an act transferring the *State Laboratory of Natural History* from the Illinois State Normal University to the University of Illinois. This laboratory was created for the purpose of making a natural history survey of the State, the results of which should be published in a series of bulletins and reports; and for the allied purpose of furnishing specimens illustrative of the flora and fauna of the State to the public schools and to the State museum. For these purposes direct appropriations are made by the legislature from session to session. Material of all classes has been collected in all parts of the State, field observations and experiments have been conducted, extending over many years, and twelve volumes have been published in the form of bulletins and final reports.

The most important problem upon which the work of the survey is at present concentrated is the effect of drainage operations, sewage contaminations, and other results of industrial occupancy upon the general system of life in our principal rivers.

# THE STATE ENTOMOLOGIST'S OFFICE

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## STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *State Entomologist*

CHARLES ARTHUR HART, *Systematic Entomologist*

WESLEY PILLSBURY FLINT, *Assistant for Central Illinois*

LINDLEY MALCOLM SMITH, B.S., *Assistant for Southern Illinois*

DAVID KENT MACMILLAN, B.S., *Assistant for Northern Illinois*

PRESSLEY ADAMS GLENN, A.M., *Chief Horticultural Inspector*

JOHN RUSSELL MALLOCH, *Illustrator and Custodian*

The work of the *State Entomologist's Office* has been done at the University of Illinois since January, 1885; by legislative enactment in 1899 it was permanently established at the University, the Trustees of which are required by that act to provide for the Entomologist and his assistants such office and laboratory rooms as may be necessary to the performance of their duties.

It is the duty of this officer to investigate all insects dangerous to any valuable property or dangerous to the public health, and to conduct experiments for the control of injuries to persons or property by insects, publishing the results of his researches biennially in his official report. He is required also to inspect and certify annually all Illinois nurseries and all importations of nursery stock, and to maintain a general supervision of the horticultural property of the State with respect to its infestation by dangerous insects and its infection with contagious plant disease.

Twenty-eight reports have now been published by the Entomologist, fifteen of them since the transfer of his office to the University.

# THE STATE WATER SURVEY

EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

EDWARD BARTOW, Ph.D., *Director*

SAMUEL WILSON PARR, M.S., *Consulting Chemist*

ARTHUR NEWELL TALEBOT, C.E., *Consulting Engineer*

PAUL HANSEN, B.S., *Engineer*

WILFRED FRANCIS LANGEIER, M.S., *Inspector*

\*HARRY PEACH CORSON, Ph.D., *Chemist and Bacteriologist*

\*RALPH HILSCHER, B.S., *Assistant Engineer*

FLOYD WILLIAM MOHLMAN, M.S., *Assistant Chemist*

HARRY FOSTER FERGUSON, B.S., *Assistant Engineer*

MAURICE CHARLES SJOBLOM, B.S., *Engineering Assistant*

JOHN FRANCIS SCHNELLBACH, B.S., *Engineering Assistant*

ARTHUR NORTON BENNETT, M.S., *Assistant Chemist*

WILLIAM DURRELL HATFIELD, B.S., *Assistant Bacteriologist*

A chemical survey of the waters of the State was begun in the latter part of September, 1895. In 1897 the legislature authorized the continuance of the work and directed the Trustees of the University to establish a chemical and biological survey of the waters of the State. In 1911 the legislature made an increased appropriation and imposed additional duties on the State Water Survey, authorizing it to employ field men to inspect water supplies and water-sheds, and to make, free of charge, sanitary examinations of water for citizens of Illinois. The Survey has collected data concerning the most of the water supplies and sewerage systems, and many water-sheds, making chemical and bacteriological examinations to demonstrate the sanitary condition of water supplies and streams, and to determine standards of purity for drinking waters. The Survey advises municipal authorities how best to obtain and conserve an adequate supply of pure water for domestic and manufacturing purposes.

The Survey is a division of the department of chemistry of the University of Illinois, and special laboratories are equipped in the Chemistry Building for conducting the work. The engineering division is located at present in Engineering Hall, but is to be transferred to the Chemistry Building early in 1916.

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\*Resigned, December 1, 1915.

# THE STATE GEOLOGICAL SURVEY

## COMMISSION

GOVERNOR EDWARD F DUNNE, *Chairman*

PROFESSOR T. C. CHAMBERLIN, Ph.D., D.Sc., LL.D., *Vice-Chairman*

PRESIDENT EDMUND JANES JAMES, Ph.D., LL.D., *Secretary*

## STAFF

FRANK WALBRIDGE DEWOLF, B.S., *Director, Urbana*

EDWARD BARTOW, Ph.D., *Consulting Chemist in Water Analysis, University of Illinois, Urbana*

ULYSSES SHERMAN GRANT, Ph.D., *Consulting Geologist in Lead and Zinc Studies, Northwestern University, Evanston*

SAMUEL WILSON PARR, M.S., *Consulting Chemist in Coal Investigations, University of Illinois, Urbana*

CHARLES WESLEY ROLFE, M.S., *Consulting Geologist in Clay Investigations, University of Illinois, Urbana*

ALBERT VICTOR BLEININGER, B.S., *Consulting Ceramist, University of Illinois, Urbana*

ROLLIN D SALISBURY, A.M., LL.D., *Consulting Geologist in Preparation of Educational Series, University of Chicago, Chicago*

FRED HALL KAY, B.S., *Assistant State Geologist, Urbana*

THOMAS EDMUND SAVAGE, Ph.D., *Geologist, University of Illinois, Urbana*

STUART WELLER, Ph.D., *Geologist, University of Chicago, Chicago*

GILBERT H CADY, A.M., *Geologist, Urbana*

HELEN JEANNE SKEWES, A.B., *Assistant Geologist, Urbana*

E WESLEY SHAW, B.S., *Assistant Geologist in Cooperative Surveys, Urbana, Ill., and Washington, D. C.*

WALLACE LEE, *Assistant Geologist in Cooperative Surveys, Urbana, Ill., and Washington, D. C.*

WALTER STEPHEN NELSON, *Engineering Draftsman, Urbana*

JUSTA M LINDGREN, A.M., *Chemist, Urbana*

WILLIAM HENRY HERRON, B.S., *Geographer in charge of Topographical Surveys in Illinois, Urbana, Ill., and Washington, D. C.*

The Forty-fourth General Assembly passed an act, in force July 1, 1905, providing for the establishment at the University of Illinois of the *State Geological Survey*. The Survey is under the control of a Commission, of which the President of the University is an *ex officio* member.

The purpose of the Survey is primarily the study and exploration of the mineral resources of Illinois. Field parties are organized for the investigation of oil, clay, coal, stone, artesian water, cement materials, and road materials, and for general scientific investigations. The Survey is charged also with the duty of making a complete topographical and geological survey of the State. Topographical and geological surveys are now being carried on in cooperation

with the United States Geological Survey. These will lead to the publication of a series of bulletins and maps, eventually covering the entire State.

The Forty-fifth General Assembly further charged the Commission with the duty of making surveys and studies of lands subject to overflow, with a view to their reclamation. Work has been carried on in cooperation with the Rivers and Lakes Commission, the United States Geological Survey, and the United States Department of Agriculture, along the Sangamon, Kaskaskia, Big Muddy, Little Wabash, Embarrass, Spoon, and Saline rivers. Reports have been issued on the Little Wabash, Kaskaskia, and Embarrass.

The laboratory work is done in connection with various department laboratories of the University. The equipment includes a working library, maps, and a growing collection, illustrating the geological and the economical resources of the State. Twenty-six bulletins and a large number of maps have been published. Many temporary assistants besides the regular corps are employed each summer.

Under an agreement between the State Geological Survey and the Engineering Experiment Station on the one hand, and the United States Bureau of Mines on the other, a branch station has been located at Urbana for a cooperative investigation of the Illinois coal mining industry. The Forty-seventh General Assembly made appropriations to carry on the work for two years, and the Forty-eighth and Forty-ninth General Assemblies repeated the appropriations for equal periods. See page 437.

# THE BOARD OF EXAMINERS IN ACCOUNTANCY

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EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT

## BOARD OF EXAMINERS

JAMES HALL, C.P.A., *Chairman*, Chicago

CLARENCE MARTIN DeLANY, A.B., C.P.A., *Secretary*, Chicago

NATHAN WILLIAM MACCHESNEY, A.B., LL.B., Chicago

## UNIVERSITY COMMITTEE

DAVID KINLEY, Ph.D., LL.D., *Chairman*

CHARLES MAXWELL McCONN, A.M., *Secretary*

EDWARD HARRIS DECKER, A.B., LL.B.

By a law passed in 1903 the State University is made an examining board of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees have appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of Certified Public Accountant are required to pass examinations in the theory of accounts, commercial law, auditing, and practical accounting.

The Illinois Society of Certified Public Accountants offers annually a gold medal and a silver medal to be awarded to the persons passing the C. P. A. examination with the highest total marking in all subjects and with the second highest total marking in all subjects respectively.

# CO-OPERATIVE INVESTIGATION OF ILLINOIS COAL PROBLEMS

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

## STAFF

### Engineering Experiment Station

WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Director*

HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*

\*STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Assistant Professor of Mining Research*

### SPECIAL MINING ENGINEERS AND FIELD SAMPLERS

### State Geological Survey

FRANK WALBRIDGE DEWOLF, B.S., *Director*

FRED HALL KAY, B.S., *Assistant State Geologist*

GILBERT HAVEN CADY, A.B., M.S., *Geologist*

THOMAS EDMUND SAVAGE, M.S., Ph.D., *Geologist*

WALTER STEPHEN NELSON, *Engineer*

### United States Bureau of Mines

VAN H MANNING, A.B., *Director*

GEORGE S RICE, E.M., *Chief Mining Engineer, Pittsburgh, Pa.*

HOWARD I SMITH, B.S., (Min.) *District Mining Engineer*

JAMES RUSSELL FLEMING, E.M., *Assistant Mining Engineer, studying the use of explosives*

ROBERT JASPER HAMON, B.S., *Junior Chemist*

HORACE CHAMBERLAIN PORTER, M.S., Ph.D., *Chemist, Pittsburgh, Pa.*

The Engineering Experiment Station through the department of mining engineering of the University of Illinois, the State Geological Survey, and the United States Bureau of Mines are cooperating in the investigation of some of the problems connected with the mining of coal in the State of Illinois, under authority granted by the Forty-seventh General Assembly.

This cooperative work is constructive as well as statistical, based upon accurate data and taking account of all existing conditions, to enable the operators and miners of the State to produce coal more safely, more cheaply, and with less waste.

A staff of trained mining engineers, geologists, and chemists has been placed at the disposal of the coal industry of Illinois.

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\*Resigned, November 30, 1915.



PART VI  
LIST OF STUDENTS, ETC.  
(1915—1916)



# LIST OF STUDENTS

## THE GRADUATE SCHOOL

Albrecht, William Albert—Agronomy *A.B., B.S., 1911, 1914	<i>Champaign</i>
Alden, Earle Stanley—English A.B. ( <i>Colorado Coll.</i> ) 1909 A.M. ( <i>Harvard Univ.</i> ) 1913	<i>Los Angeles, California</i>
Alexander, John Alva—Education (Work for A.B. completed)	<i>Urbana</i>
Allen, Alice Alexandria—Psychology (Work for A.B. completed)	<i>Urbana</i>
Allen, Louis—French A.B., 1913	<i>Clinton</i>
Allen, Othe William—French A.B., 1915	<i>Clinton</i>
Allen, Paul William—Dairy Bacteriology B.S. ( <i>St. Lawrence Univ.</i> ) 1910 M.S. ( <i>Cornell Univ.</i> ) 1914	<i>Urbana</i>
Alssid, Lazare B—French A.B. ( <i>Allegheny Coll.</i> ) 1915	<i>Pittsburgh, Pennsylvania</i>
Alvord, Idress Head—History ( <i>Howard-Payne Coll.</i> )	<i>Urbana</i>
Amsterdam, Harry—Philosophy A.B. ( <i>Lake Forest Coll.</i> ) 1915	<i>Russia</i>
Anderson, Andrew John Albert—Theoretical and Applied Mechanics B.S.M.E. ( <i>Lewis Inst.</i> ) 1913	<i>Chicago</i>
Andrews, James Burton—Animal Husbandry B.S., 1913	<i>Urbana</i>
Andros, Stephen Osgood—Mining Engineering A.B. ( <i>Bowdoin Coll.</i> ) 1897 B.S., E.M. ( <i>Michigan Coll. of Mines</i> ) 1902, 1903	<i>Champaign</i>
Anthony, Mamie Elizabeth—Education A.B., A.M. ( <i>Greenville Coll.</i> ) 1907, 1911	<i>Greenville</i>
Asher, Henry Tourner—English A.B. ( <i>Indiana Univ.</i> ) 1914	<i>Bellaire, Ohio</i>
Applegate, Albert Angelo—English A.B., 1914	SS† <i>Atlanta</i>
Atwell, Clarence Allen—Electrical Engineering B.S. in EE. ( <i>Univ. of Nebraska</i> ) 1914	<i>Urbana</i>
†Atwood, Levi Patten—Civil Engineering B.S., 1894	<i>Madison, Wisconsin</i>
Augustus, Earl Kirkwood—Animal Husbandry B.S., 1914	<i>Urbana</i>
Babbitt, Harold Eaton—Municipal and Sanitary Engineering B.S. ( <i>Massachusetts Inst. of Tech.</i> ) 1911	<i>Urbana</i>
Bailey, Ernest Winfield—Genetics B.S. ( <i>Massachusetts Agric. Coll.</i> ) 1908	(SS) <i>Worcester, Massachusetts</i>
Bailey, LaForce—Architecture B.S., 1915	<i>Wilmington</i>
Baker, James Chamberlain—Philosophy A.B. ( <i>Illinois Wesleyan Univ.</i> ) 1898 S.T.B. ( <i>Boston Univ.</i> ) 1905	<i>Urbana</i>
Baldwin, Francis March—Zoology A.B., A.M. ( <i>Clark Coll.</i> ) 1906, 1907	<i>West Upton, Massachusetts</i>
Ball, Theodore Rolly—Chemistry B.S. ( <i>Drake Univ.</i> ) 1908	<i>Des Moines, Iowa</i>
Bates, Lew Wallace—Education B.S. ( <i>Hiram Coll.</i> ) 1913	SS <i>Hebron, Ohio</i>
Bauer, Frederick Charles—Agronomy B.S., 1909	<i>Champaign</i>
Baumgartner, Rachel Ann—Zoology A.B. ( <i>Univ. of Kansas</i> ) 1912	<i>Halstead, Kansas</i>
Bayley, Paul Levern—Physics A.B. ( <i>Univ. of Arkansas</i> ) 1913	<i>Ft. Smith, Arkansas</i>
Beach, Walter Spurgeon—Plant Pathology B.S. ( <i>Minnesota Coll. of Agr.</i> ) 1914 M.S. ( <i>Mich. Agr. Coll.</i> ) 1915	<i>Hutchinson, Minnesota</i>
Beattie, Harry James—Chemistry A.B., A.M. ( <i>Univ. of Denver</i> ) 1914, 1915	<i>Denver, Colorado</i>

\*Degrees were conferred by the University of Illinois unless otherwise specified. Two degrees from the same institution are indicated thus: A.B., A.M., 1909, 1911.

†Attendance during both the Summer Session of 1915 and the regular Session of 1915-16 is indicated by SS in parenthesis; during the Summer Session only, by SS.

‡Candidate for professional degree in engineering.

Beatty, Albert James—Education B.S. ( <i>N. Illinois Normal School</i> ) 1894 A.B. ( <i>Knox Coll.</i> ) 1900	Urbana
Beck, Clyde Byron—English A.B. ( <i>Earlham Coll.</i> ) 1906	Richmond, Indiana
Beekley, John Sherman—Mathematics A.B. ( <i>Miami Univ.</i> ) 1915	West Chester, Ohio
Bennett, Arthur Norton—Chemistry B.S., M.S., 1907, 1915	Chicago
Berninger, Harriett Josephine—Education A.B., 1915	(SS) Mt. Carmel
Biegler, Philip Sheridan—Electrical Engineering B.S. ( <i>Univ. of Wisconsin</i> ) 1905	(SS) Urbana
Billings, Ralph—Mathematics A.B. ( <i>Yankton Coll.</i> ) 1914	SS Geddes, South Dakota
Bissell, Don Warren—Organic Chemistry B.S. ( <i>New Hampshire Coll.</i> ) 1914	Keene, New Hampshire
Bixby, Madeline—Chemistry (Work for B.S. completed, <i>Tufts Coll.</i> , 1916)	North Andover, Mass.
Bohn, John Edward—Pomology B.S. ( <i>Univ. of Missouri</i> ) 1912	St. Louis, Missouri
Bole, Simon James—Education A.B. ( <i>Univ. of Michigan</i> ) 1906	(SS) Champaign
Bond, Ethel—Sociology A.B. B.L.S., 1907, 1908	Champaign
Booth, Harry Tyler—Physics B.S. ( <i>Carleton Coll.</i> ) 1915	Stewartsville, Minnesota
Borden, Raymond Franklin—Mathematics Ph.B., A.M. ( <i>Brown Univ.</i> ) 1914, 1915	Melville, Rhode Island
Botteron, George Washington—Education A.B. ( <i>Defiance Coll.</i> ) 1913	SS New Haven, Indiana
Boughton, Thomas Harris—Pathology M.S. ( <i>Univ. of Chicago</i> ) 1904 M.D. ( <i>Rush Medical Coll.</i> ) 1906	Evanston
Bowden, Robert Douglas—Political Science A.B. ( <i>State Coll. of Oklahoma</i> ) 1913	SS Sedalia, Kentucky
Bowler, Felix Fielding—English A.B. ( <i>Howard Univ.</i> ) 1906	SS Cairo
Boyle, Clarence Jr.—Mechanical Engineering B.S., 1910	Chicago
Brady, St. Elmo—Chemistry A.B. ( <i>Fisk Univ.</i> ) 1908	Louisville, Kentucky
Braham, Joseph Marvin—Physical Chemistry B.S. ( <i>Univ. of Idaho</i> ) 1914	Spokane, Washington
Braley, Silas Alonzo—Industrial Chemistry A.B. ( <i>Morningside Coll.</i> ) 1913	Cherokee, Iowa
Breese, Carl Shipman—Electrical Engineering B.S. ( <i>Kansas State Agrl. Coll.</i> ) 1912	Manhattan, Kansas
Brill, Jesse Hugo—Education A.B. ( <i>Miami Univ.</i> ) 1914	SS Camden, Ohio
Brinkerhoff, Verne William—Mathematics (Work for A.B. completed)	Rock Island
Brock, William Sanford—Horticulture A.B. ( <i>Waynesville Coll.</i> ) 1910 B.S., 1915	Waynesburg, Pennsylvania
Brown, Enid Ware—English A.B. ( <i>Ohio Wesleyan Univ.</i> ) 1910	Jewett, Ohio
Brown, Howard Dexter—Horticulture B.S., 1914	Tiffin, Ohio
Brown, John Bernis—Chemistry B.S., 1915	Rock Falls
Brown, Pembroke Holcomb—Economics A.B., 1915	Rockford
Bruce, William Robert—Organic Chemistry A.B. ( <i>Lawrence Coll.</i> ) 1915	Appleton, Wisconsin
Bruner, Mary Viola—Latin A.B., 1913	(SS) Mattoon
Brunson, Arthur Maxwell—Agronomy B.S., 1913	Urbana
Brush, Elizabeth Parnham—History A.B. ( <i>Smith Coll.</i> ) 1909 A.M., 1912	Carbondale
Buell, Mary Van Rensselaer—Organic Chemistry A.B., A.M. ( <i>Univ. of Wisconsin</i> ) 1914, 1915	Madison, Wisconsin
Bull, Sleeter—Animal Husbandry B.S. ( <i>Ohio State Univ.</i> ) 1910 M.S. ( <i>Pennsylvania State Coll.</i> ) 1911	Urbana
Burgleit, Walter Henry—Physics ( <i>Technical Univ., Dresden, Germany</i> )	SS Springfield
Callen, Alfred Copeland—Mining Engineering B.S., M.S. ( <i>Lehigh Univ.</i> ) 1909, 1911	(SS) Urbana
Carmichael, Wilbur Jerome—Animal Husbandry B.S., 1913	Urbana

†Candidate for professional degree in engineering.

Carroll, Daniel Bernard—Political Science A.B., 1915	Pittsfield
Carter, Alice—History A.B., 1915	Evanston
Casserly, Joseph Bernard—Agronomy B.S., 1915	Champaign
Chambers, William Harold—Bacteriology B.S., 1915	Evanston
Chandler, Edwin Marion Augustus—Organic Chemistry A.B. ( <i>Howard Univ.</i> ) 1913 A.M. ( <i>Clark Univ.</i> ) 1914	Washington, D. C.
Charlton, Ernest Edward—Industrial Chemistry A.B. ( <i>Grinnell Coll.</i> ) 1913	Cherokee, Iowa
Checkley, Joseph Harvey—Economics B.S., 1913	Mattoon
Chen, Lan-sung—Railway Administration (Work for A.B. completed)	Peking, China
Clark, Fred Emerson—Economics A.B. ( <i>Albion Coll.</i> ) 1912	Albion, Michigan
Clark, Helen—Fellow in Psychology A.B., ( <i>Vassar Coll.</i> ) 1913	Cortland, New York
Clarke, Philena—English A.B. ( <i>Earlham Coll.</i> ) 1911	SS Noblesville, Indiana
Clayberg, Harold Dudley—Botany A.B. M.S., 1913, 1914	Oak Park
Clevenger, Charles Henry—Mathematics B.S. ( <i>Ohio State Univ.</i> ) 1902 M.S. ( <i>Univ. of Chicago</i> ) 1910	Urbana
Clevenger, Clinton B.—Agronomy B.S., M.S. ( <i>Ohio State Univ.</i> ) 1912, 1913	Fletcher, Ohio
Cobb, Margaret Vara—Education A.B. ( <i>Radcliffe Coll.</i> ) 1910	Falls Church, Virginia
†Coghlan, Byron Kemp—Civil Engineering B.S., 1908	College Station, Texas
Colby, Arthur Samuel—Horticulture B.S. ( <i>New Hampshire Coll.</i> ) 1911	Tilton, New Hampshire
Colcord, Mary Elizabeth—Latin A.B. ( <i>Greenville Coll.</i> ) 1910	(SS) Greenville
Collings, Gilbert Hooper—Agronomy B.S. ( <i>Virginia Poly. Inst.</i> ) 1915	Creme, Virginia
Collom, Mary Elizabeth—Household Science A.B., 1915	(SS) Urbana
Conel, Jesse LeRoy—Zoology A.B. ( <i>Milwaukee Univ.</i> ) 1912	Decatur
Cook, Willard Oliver—Organic Chemistry A.B. ( <i>Wabash Coll.</i> ) 1914	New Salem, Indiana
Cooke, Delmar Gross—Fellow in English A.B., 1912	Piper City
Cooper, Arthur Reuben—Fellow in Zoology A.B. ( <i>Victoria Coll., Toronto Univ.</i> ) 1910 A.M. ( <i>Univ. Coll., Toronto Univ.</i> ) 1911	Ontario, Canada
Copley, Beatrice Virginia—English A.B., 1915	Joliet
Corzine, Bruce Herbert—Education (Work for A.B. completed)	Charleston
Cox, Samuel Francis—Chemistry A.B., A.M. ( <i>Central Coll.</i> ) 1913, 1914	(SS) Shoole, Indiana
Crawford, Frederick North—Chemistry B.S. ( <i>Wesleyan Univ.</i> ) 1908	Middletown, Connecticut
Crawford, James Alfred—Horticulture B.S. ( <i>New York State Coll. of Agr.</i> ) 1915	Buffalo, New York
Crooker, Sylvan Jay—Fellow in Physics B.S. ( <i>Carleton Coll.</i> ) 1914	Fairmont, Minnesota
Cruzan, Myrtle Amy—English A.B., 1914	Mattoon
Cullum, William Henry—Scholar in Mathematics A.B. ( <i>Albion Coll.</i> ) 1915	Detroit, Michigan
Dalbey, Nora Elizabeth—Plant Physiology A.B., A.M. ( <i>Univ. of Kansas</i> ) 1913, 1914	Sterling, Kansas
Danielson, Ralph Raymond—Ceramics B.S., 1914	Chicago
Darrah, Juanita Elizabeth—Chemistry A.B., 1913	SS Champaign
Davidson, Carl Nathan—Chemistry A.B. ( <i>Lawrence Coll.</i> ) 1914	Manston, Wisconsin
Davidson, Levette Jay—Scholar in English A.B. ( <i>Eureka Coll.</i> ) 1915	Eureka
Davis, John Williams—Electrical Engineering M.E. ( <i>Cornell Univ.</i> ) 1910	Petersburg, Virginia
Davis, Mary Belle—Mathematics A.B., 1901	Urbana
Davis, Raymond Earl—Theoretical and Applied Mechanics B.S. ( <i>Miami Univ.</i> ) 1911	Urbana

†Candidate for professional degree in engineering.

Davis, Robert Lesley—Botany A.B. ( <i>Univ. of Nebraska</i> ) 1914		<i>Lincoln, Nebraska</i>
Dawson, Eric Allen—French B.S., A.M. ( <i>Univ. of Mississippi</i> ) 1908, 1914		<i>Okolona, Mississippi</i>
Debel, Niels Henricksen—Fellow in Political Science A.B., A.M. ( <i>Univ. of Nebraska</i> ) 1913, 1914		<i>Blair, Nebraska</i>
Dean, Paul Marshall—Organic Chemistry A.B., A.M. ( <i>Univ. of Colorado</i> ) 1908, 1911	SS	<i>Boulder, Colorado</i>
†DeLeuw, Charles Edmund—Civil Engineering B.S., 1912		<i>Chicago</i>
Dent, John Adlum—Mechanical Engineering M.E. ( <i>Lehigh Univ.</i> ) 1905	(SS)	<i>Champaign</i>
Dickey, Lloyd Blackwell—Zoology A.B. ( <i>Fargo Coll.</i> ) 1915		<i>Esmond, North Dakota</i>
Dickerson, Ira William—Electrical Engineering B.S., 1909	SS	<i>Newton</i>
Dighton, Andrew Jackson—English A.B. ( <i>Univ. of Michigan</i> ) 1909		<i>Monticello</i>
Dixon, Clifford Harrison—History (Work for A.B. completed, <i>Illinois College</i> , 1916)		<i>Urbana</i>
Dixon, Raymond Ephraim—English A.B. ( <i>Univ. of Wisconsin</i> ) 1909	(SS)	<i>Dalton, Wisconsin</i>
Dosey, Edward Adelbert—Physiological Chemistry A.B., 1914	SS	<i>San Diego, California</i>
Dole, Lillian Dora—Scholar in Zoology A.B., 1915		<i>Manteno</i>
†Doyle, Edgar Dwight—Electrical Engineering B.S., 1910		<i>New York City</i>
Draffin, Jasper Owen—Fellow in Theoretical and Applied Mechanics B.S. ( <i>Univ. of Vermont</i> ) 1913		<i>Nayon, Quebec</i>
Dreesen, William Henry—Economics A.B. ( <i>Greenville Coll.</i> ) 1907		<i>Urbana</i>
Dryden, Dean Daisy—History A.B. ( <i>Univ. of Kansas</i> ) 1905		<i>Wichita, Kansas</i>
DuPois, Henry Mathusalem—Paleontology A.B., A.M., ( <i>Indiana Univ.</i> ) 1913, 1914		<i>Rochester, Indiana</i>
Durst, Charles Elmer—Genetics B.S., M.S., 1909, 1912	(SS)	<i>Urbana</i>
Dwyer, Ellen Frances—German (Work for A.B. completed)		<i>Charleston</i>
Dyar, Hubert Lee—Education A.B. ( <i>Eureka Coll.</i> ) 1905	SS	<i>Low Point</i>
Eastman, Otis Miles—Education A.B., 1909		<i>Harvard</i>
Ebersol, Elmer Tryon—Agronomy A.B., 1902		<i>Champaign</i>
Eckstein, Henry Charles—Chemistry (Work for A.B. completed)	(SS)	<i>Peoria</i>
Edwards, M. Reece—Agronomy B.S., Pd.B. ( <i>Valparaiso Univ.</i> ) 1909	(SS)	<i>Urbana</i>
(Work for B.S. completed)		
Elliott, John Asbury—Fellow in Plant Pathology A.B. ( <i>Fairmont Coll.</i> ) 1913	(SS)	<i>Ness City, Kansas</i>
A.M. ( <i>Univ. of Kansas</i> ) 1914		
†Enger, Arthur Ludwig—Civil Engineering B.S., 1911		<i>Tucson, Arizona</i>
Engle, Edgar Wallace—Fellow in Chemistry B.S. ( <i>Dury Coll.</i> ) 1912		<i>Springfield, Missouri</i>
M.S., 1914		
Engle, Jeannette Morrison—Education A.B., 1915		<i>Urbana</i>
Englis, Duane Taylor—Chemistry A.B. ( <i>Eureka Coll.</i> ) 1912		<i>Eureka</i>
A.M., 1914		
Ensign, Newton Edward—Theoretical and Applied Mechanics A.B. ( <i>McKendree Coll.</i> ) 1905		
A.B. ( <i>Oxford Univ.</i> ) 1908		
B.S., 1911	(SS)	<i>Urbana</i>
Everett, Louis Lee—Education B.S. ( <i>Muskingum Coll.</i> ) 1914	SS	<i>Lisbon</i>
Fahrnkopf, Harrison Frederick Theodore—Agronomy B.S., 1913		<i>Urbana</i>
Falls, Frederick Howard—Pathology B.S. ( <i>Univ. of Chicago</i> ) 1908		<i>Chicago</i>
M.D. ( <i>Rush Medical Coll.</i> ) 1910		
Fanning, Ralph Stanley—Architecture B. Arch. ( <i>Cornell Univ.</i> ) 1912		<i>Riverhead, New York</i>
Fazel, Charles Stever—Physics A.B. ( <i>Fairmount Coll.</i> ) 1914		<i>Wichita, Kansas</i>
Feik, Roy William—Education B.S. ( <i>Northwestern Coll.</i> ) 1913		<i>La Moille</i>

†Candidate for professional degree in engineering.

Fell, Frances—English A.B. ( <i>Millikin Univ.</i> ) 1908		Decatur
Feng, Kaimin Kay—Civil Engineering B.S., 1915		<i>Pei-lui, Kwangsi, China</i>
Fisher, Forrest Adison—Agronomy B.S., 1911		<i>Urbana</i>
Fleming, Denna Frank—Education (Work for A.B. completed)		<i>Paris</i>
Flowerree, Trennace—Agronomy B.S., 1913		<i>Champaign</i>
†Foersterling, Frederick John—Electrical Engineering B.S., 1911		<i>Peoria</i>
Footitt, Frank F.—Inorganic Chemistry A.B. ( <i>Albion Coll.</i> ) 1914		<i>St. Johns, Michigan</i>
Ford, Jay Thomas—Industrial Chemistry A.B. ( <i>DePauw Univ.</i> ) 1914		<i>Pendleton, Indiana</i>
Frank, Edwin Diederich August—Mechanical Engineering B.S. ( <i>Massachusetts Inst. of Tech.</i> ) 1906		<i>Milwaukee, Wisconsin</i>
Frary, Hobart Dickinson—Mathematics M.E., M.S. ( <i>Univ. of Minnesota</i> ) 1908, 1909		<i>Minneapolis, Minnesota</i>
†Freeman, Perry John—Mechanical Engineering B.S., 1907		<i>Manhattan, Kansas</i>
French, Beals Ensign Litchfield—Education B.S. ( <i>Alfred Univ.</i> ) 1913		<i>Ellicottville, New York</i>
French, Herbert Ephraim—Organic Chemistry A.B. ( <i>Morningside Coll.</i> ) 1915		<i>Sioux City, Iowa</i>
Fritz, Harry Rhinehardt—Fellow in Electrical Engineering C.E. ( <i>Univ. of Texas</i> ) 1914		<i>St. Louis, Missouri</i>
Gardner, Ella Waterbury—English A.B. ( <i>Univ. of Iowa</i> ) 1905	SS	<i>Champaign</i>
Gardner, John Joseph—Pomology B.S. ( <i>Massachusetts Agricultural Coll.</i> ) 1905		<i>Champaign</i>
Garnett, Philip—Fellow in Entomology B.S. ( <i>Kentucky State Univ.</i> ) 1913		<i>Lexington, Kentucky</i>
M.S., 1914		<i>Chicago</i>
†Gaston, Ralph Mayo—Electrical Engineering B.S., 1903		<i>Spokane, Washington</i>
Gatward, Walter Arthur—Fellow in Electrical Engineering B.S. ( <i>Washington State Coll.</i> ) 1913		<i>Grand Rapids, Wisconsin</i>
Gaynor, Elizabeth Prudence Webb—History A.B. ( <i>Univ. of Wisconsin</i> ) 1907		<i>Chicago</i>
Geiger, Charles Francis—Ceramics B.S., 1915		<i>Vryberg, South Africa</i>
Geiling, Eugene Maximilian Karl—Agricultural Chemistry A.B. ( <i>Univ. of Cape of Good Hope</i> ) 1911		<i>Racine, Wisconsin</i>
Geist, Harry Forest—Electrical Engineering B.S., 1912		<i>Toronto, Canada</i>
Gilmore, Ross Earby—Industrial Chemistry A.B., A.M. ( <i>McMaster Univ.</i> ) 1911, 1913		<i>Urbana</i>
Godeke, Harry Frederick—Mechanical Engineering B.S., 1905	(SS)	<i>Almyra, Arkansas</i>
Graham, William Morland—Sociology B.S. ( <i>McKendree Coll.</i> ) 1913		<i>Ivesdale</i>
Green, Bessie Rose—Zoology A.B., A.M., 1907, 1910		<i>Holton, Kansas</i>
Green, Charles Francis—Mathematics A.B., A.M. ( <i>Univ. of Kansas</i> ) 1914, 1915		<i>Urbana</i>
Greene, James Henry—Education B.S., M.S., 1908, 1915		<i>Chicago</i>
Greenfield, Edman—Chemistry A.B. ( <i>Univ. of Kansas</i> ) 1914		<i>Traverse City, Michigan</i>
Greengard, Louis Jacob—Horticulture (Work for B.S. completed)		<i>Ithaca, New York</i>
Griffin, Clare Elmer—Fellow in Economics A.B. ( <i>Albion Coll.</i> ) 1914		<i>Chicago</i>
Gross, Cecil Robert—Bacteriology B.S. ( <i>Cornell Univ.</i> ) 1915	SS	<i>Pawtucket, Rhode Island</i>
Grotaphorst, Waldo Edward—Animal Husbandry B.S. ( <i>Univ. of California</i> ) 1914		<i>Urbana</i>
Guild, Frederic Howland—Fellow in Political Science A.B. ( <i>Brown Univ.</i> ) 1913		<i>Urbana</i>
A.M. ( <i>Indiana Univ.</i> ) 1915		<i>Urbana</i>
Gulick, Edward Everett—Education B.L., 1892		<i>Urbana</i>
†Gulley, Lawrence Richard—Mechanical Engineering B.S., M.S., 1910, 1911		<i>Urbana</i>
Gundersen, Alfred Joseph—Pomology B.S., 1911		<i>Urbana</i>
Gusler, Gilbert—Animal Husbandry B.S. ( <i>Ohio State Univ.</i> ) 1912		<i>Urbana</i>
Gustafson, Axel Ferdinand—Agronomy B.S., 1907		<i>Aledo</i>

†Candidate for professional degree in engineering.

Haessler, Carl Herman—Philosophy A.B. ( <i>Univ. of Wisconsin</i> ) 1911 A.B. ( <i>Oxford Univ.</i> ) 1914	<i>Milwaukee, Wisconsin</i>
Hamilton, Clyde Carney—Entomology B.S. ( <i>Kansas State Agr. Coll.</i> ) 1913	<i>Holton, Kansas</i>
Hamon, Robert Jasper—Organic Chemistry B.S. ( <i>Oklahoma State Coll.</i> ) 1911	<i>Urbana</i>
Hansen, Roy—Agronomy B.S., 1914	<i>Rock Island</i>
Hanson, Frank Blair—Zoology A.B. ( <i>George Washington Univ.</i> ) 1913	<i>Bloomington</i>
Hao, Tso Chang—Economics (Work for A.B. completed)	<i>Wuchingsien, China</i>
Harbarger, Sada Annis—English A.B. ( <i>Ohio State Univ.</i> ) 1906 A.M., 1909	<i>Columbus, Ohio</i>
Harkiewad, Frank Samuel—Animal Husbandry B.S. ( <i>Univ. of Tennessee</i> ) 1914	<i>Bristol, Tennessee</i>
Harper, Claude—Animal Husbandry B.S. ( <i>Purdue Univ.</i> ) 1914	<i>Ligonier, Indiana</i>
Harris, Olive Caroline—Scholar in German A.B. ( <i>Hedding Coll.</i> ) 1915	<i>Abingdon</i>
Harris, William—Education A.B. 1914	SS <i>Altamont</i>
Harrison, Bernice—Education A.B., 1912	SS <i>Champaign</i>
Harshbarger, James Francis—Education A.B., 1913	<i>Arcola</i>
Hatfield, William Durrell—Chemistry B.S. ( <i>Illinois Coll.</i> ) 1914	<i>Jacksonville</i>
†Haungs, Howard Charles—Civil Engineering B.S., 1907	<i>Peoria</i>
Hebbert, Clarence Mark—Fellow in Mathematics B.S. ( <i>Otterbein Univ.</i> ) 1911 M.S., 1914	<i>Bloomdale, Ohio</i>
Hecht, August George—Horticulture B.S., 1914	<i>Overland, Missouri</i>
Heimbürger, Harry Virl—Zoology A.B. ( <i>DePauw Univ.</i> ) 1911	<i>Kewanna, Indiana</i>
Heinzelmüller, Alfred Martin—Industrial Chemistry B.S., 1915	<i>Aurora</i>
Henderson, James Bruce—Animal Husbandry (Work completed for B.S.)	<i>Millers Ferry, Alabama</i>
Henrich, Louis Joseph—Education B.S. ( <i>Kentucky State Univ.</i> ) 1913 M.S. ( <i>Iowa State Coll.</i> ) 1915	<i>Newport, Kentucky</i>
Henry, Theodore Spofford—Education A.B. ( <i>Hedding Coll.</i> ) 1903	(SS) <i>Urbana</i>
Hess, Roy Washington—Organic Chemistry A.B. ( <i>Morningside Coll.</i> ) 1912 A.M., 1914	<i>Plover, Iowa</i>
Hicks, John Frederick Gross—Inorganic Chemistry B.S. ( <i>Univ. of Pennsylvania</i> ) 1906	<i>Stillwater, Oklahoma</i>
Higgins, George Marsh—Zoology B.S. ( <i>Knox Coll.</i> ) 1914	<i>Des Plaines</i>
†Hight, Eugene Stuart—Electrical Engineering M.S., 1911	<i>Peoria</i>
Higley, Ruth—Fellow in Zoology A.B. ( <i>Grinnell Coll.</i> ) 1909	<i>Grandview, Iowa</i>
Hill, Charles Francis—Physics A.B., 1914	<i>Toledo</i>
Hill, Howard Rice—Zoology A.B. ( <i>Carroll College</i> ) 1913	<i>Chicago</i>
Hobler, Harriet Wells—History A.B. ( <i>Rockford Coll.</i> ) 1882	<i>Batavia</i>
Hofto, Jacob Arnold—Fellow in History A.B., A.M., ( <i>Univ. of North Dakota</i> ) 1913, 1914	<i>Grand Forks, North Dakota</i>
†Holbrook, Elmer Allen—Mechanical Engineering B.S. ( <i>Mass. Inst. Tech.</i> ) 1904	<i>Urbana</i>
Hoskins, Mary Mildred—History A.B., 1913	SS <i>Norris City</i>
Hoskinson, Bruce Quin—Education A.B. ( <i>Union Christian Coll.</i> ) 1905	<i>West York</i>
Hoskinson, Ottis—Education A.B. ( <i>Union Christian Coll.</i> ) 1900	SS <i>Merom, Indiana</i>
Howell, Lloyd Brelsford—Chemistry A.B. ( <i>Wabash Coll.</i> ) 1909	<i>Urbana</i>
Hsu, Chuan-Ying—Applied Economics A.B. ( <i>Nanking Univ.</i> ) 1905	<i>Chih Chow, China</i>
Hufferd, Ralph William—Organic Chemistry A.B. ( <i>Washington Univ.</i> ) 1915	<i>St. Louis, Missouri</i>
Hulce, Ray Stillman—Animal Husbandry B.S., ( <i>Univ. of Wisconsin</i> ) 1911 M.S., 1913	<i>Urbana</i>

†Candidate for professional degree in engineering.

Hull, Anna Leo—American History A.B., A.M., 1910, 1914		Urbana
Hull, Sidney Marion—Industrial Chemistry B.S., 1915		Montello, Wisconsin
Hultgren, Reuben Hartvic—Chemistry A.B. ( <i>Augustana Coll.</i> ) 1915		Andover
Hursh, Ralph Kent—Ceramic Engineering B.S., 1908		Champaign
Hypes, James Lowell—Entomology (Work for A.B. completed)		Ronceverte, West Virginia
Hyslop, William Henry—Physics A.B. ( <i>Knox Coll.</i> ) 1908 A.M., 1911		Galesburg
†Ireland, Washington Parker—Civil Engineering B.S., 1903		Sacramento, California
Jamison, Michal Velma—Latin A.B. ( <i>Northwestern Univ.</i> ) 1912		Monmouth
Jennings, Walter Wilson—Scholar in History A.B., 1915		Champaign
Jewell, Minna Ernestine—Fellow in Zoology A.B. ( <i>Colorado Coll.</i> ) 1914	(SS)	Colorado Springs, Colorado
Johnston, Joseph Henry—Fellow in Education A.B., A.M. ( <i>Univ. of North Carolina</i> ) 1910, 1914		Chapel Hill, North Carolina
Jones, Easley Stephen—English A.B. ( <i>Univ. of Colorado</i> ) 1907 A.M. ( <i>Harvard Univ.</i> ) 1913		Urbana
Jones, Lester Seaman—Education B.S. ( <i>Northwestern Univ.</i> ) 1905	SS	Oak Park
Jordan, Harvey Herbert—Theoretical and Applied Mechanics B.S. ( <i>Univ. of Maine</i> ) 1910		Waltham, Maine
Jordan, Louis—Chemistry A.B. ( <i>Bates Coll.</i> ) 1915		Woodford, Maine
Kammade, William Garfield—Animal Husbandry B.S. ( <i>Univ. of Wisconsin</i> ) 1915		Sparta, Wisconsin
Karr, Walter Gerald—Chemistry B.S. ( <i>Alfred Univ.</i> ) 1913		Almond, New York
Karrer, Sebastian—Physics A.B., A.M. ( <i>Univ. of Washington</i> ) 1911, 1913		Roslyn, Washington
Kawamoto, Tane—Electrical Engineering (Work for B.S. completed)		Kyoto, Japan
Kean, Hugh Pratt—Mathematics A.B. ( <i>Albion Coll.</i> ) 1906 A.M., 1909		Urbana
Keith, Mery Helen—Animal Nutrition B.S. ( <i>Mt. Holyoke Coll.</i> ) 1894 A.M. ( <i>Columbia Univ.</i> ) 1904		Braintree, Massachusetts
Kelso, Ruth—English A.B., A.M. 1908, 1909		Columbus, Ohio
Keltner, Charles Henry—Botany A.B., 1910	SS	Mount Morris
Kempton, Forrest Ellwood—Botany B.S. ( <i>Earlham Coll.</i> ) 1906 M.S. ( <i>Univ. of Wisconsin</i> ) 1913		Centerville, Indiana
Kennedy, Luther Eugene—Geology (Work for A.B. completed)		Springfield
Kernall, Morris Johnson—Fellow in Zoology A.B. ( <i>Univ. of North Dakota</i> ) 1906 A.M., 1914		Valley City, North Dakota
Kessler, James—French A.B. ( <i>Indiana Univ.</i> ) 1908		Portland, Indiana
Kile, Jessie June—American History A.B. ( <i>Rockford Coll.</i> ) 1912 A.M., 1914		Rockford
Kindred, James Ernest—Zoology A.B. ( <i>Tufts Coll.</i> ) 1914		Dorchester, Massachusetts
King, Joseph Lyonel—Entomology B.S. ( <i>Ohio State Univ.</i> ) 1914		Cleveland, Ohio
Kingman, Robert Hills—Zoology A.B. ( <i>Washburn Coll.</i> ) 1913		Topeka, Kansas
Kingsley, Mary Winship—History A.B., A.M. ( <i>Tufts Coll.</i> ) 1903, 1904		Urbana
Kirkpatrick, Frank Allen—Fellow in Ceramics B.S., 1914		Unionville, Michigan
Kirkpatrick, Harold H—Education A.B., 1897	SS	West Chicago
Kline, Earl Kilburn—Germanic Philology A.B. ( <i>Univ. of Oklahoma</i> ) 1906 A.M. ( <i>Oxford, England</i> ) 1913		Champaign
Knight, Abner Richard—Electrical Engineering M.E. ( <i>Ohio State Univ.</i> ) 1909		Champaign
Knight, Henry Granger—Chemistry A.B. ( <i>Univ. of Chicago</i> ) 1903 A.M. ( <i>Univ. of Washington</i> ) 1905		Laramie, Wyoming

†Candidate for professional degree in engineering.

Krausse, Leo John—Economics B.S. ( <i>Knox Coll.</i> ) 1915		Troy Grove
Kremers, Harry Cleveland—Inorganic Chemistry A.B. ( <i>Hope Coll.</i> ) 1913		Hudsonville, Michigan
Krieger, Augusta May—Education A.B., 1910	SS	Peoria
Krill, John Fred—Education A.B. ( <i>Baldwin Wallace Coll.</i> ) 1913	SS	Edgerton, Ohio
Kumano, Kichijiro—Education Graduate of Hiroshima Higher Normal Coll. (1908)		Tokio, Japan
Koons, Guy J.—Education A.B., 1912	SS	Murphysboro
Lackey, Kate—Mathematics (Work for A.B. completed)		Lawrenceville
Laguardia, Cincinnati Giovanni Battista—Spanish A.B. ( <i>Columbia Univ.</i> ) 1915		New York City
Lamkey, Ernest Michael Rudolph—Botany A.B., A.M., 1913, 1914	(SS)	Riverton
Langelier, Wilfred Francis—Chemistry B.S. ( <i>New Hampshire State Coll.</i> ) 1909 M.S., 1911		Urbana
Larson, Louis J.—Fellow in Theoretical and Applied Mechanics B.S., C.E. ( <i>Univ. of Minnesota</i> ) 1914, 1915		Windom, Minnesota
Lathrop, Charlton Page—Horticulture (Work for B.S. completed)		Chicago
Lauterbach, Edward George—Botany B.S., 1915	(SS)	Bushnell
LeCato, John Marvin—Botany A.B. ( <i>Univ. of Michigan</i> ) 1913	SS	Huntington, West Virginia
Lee, Emmett Chambers—Organic Chemistry A.B. ( <i>Louisiana State Univ.</i> ) 1915		Jackson, Louisiana
Lee, Henry Rhodes—Chemistry A.B. ( <i>Carroll Coll.</i> ) 1914		Urbana
Lentz, Clarence Alonzo—Economics (Work for A.B. completed)		Anna
Leung, Chin-Yuk—Railway Administration C.E., M.C.E. ( <i>Cornell Univ.</i> ) 1914, 1915		Canton, China
Levey, Harold Alvin—Organic Chemistry B.E. ( <i>Univ. of Louisiana</i> ) 1911		New Orleans, Louisiana
Lewis, Charles Dickens—Education B.Ped. ( <i>Kentucky Agril. and Mech. Coll.</i> ) 1903		Berea, Kentucky
Lewis, Harry Fletcher—Fellow in Organic Analysis B.S., M.S. ( <i>Wesleyan Univ.</i> ) 1912, 1913		Pottsville, Pa.
Liang, Tu Hung—Agronomy B.S., 1915		Canton, China
Lichty, Lester Clyde—Fellow in Mechanical Engineering B.S. ( <i>Univ. of Nebraska</i> ) 1913		Carleton, Nebraska
Linkins, Ralph Harlan—Fellow in Zoology A.B. ( <i>Illinois Coll.</i> ) 1911 A.M., 1914		Jacksonville
Littleton, Ananias Charles—Economics A.B., 1912		Urbana
Lloyd, Thomas Harold—Animal Husbandry B.S., 1915		Girard
Lukens, William Penn—Fellow in Mechanical Engineering A.B. ( <i>Swarthmore Coll.</i> ) 1913		Woodlyn, Pennsylvania
McAnulty, Leona—English B.S. ( <i>Carthage Coll.</i> ) 1896	SS	Carthage
McClugage, Harry Bruce—Chemistry A.B., 1915		Peoria
McClure, Leila Violet—Latin A.B. ( <i>Hedding Coll.</i> ) 1913		Abingdon
McComis, Samuel Jay—Scholar in Education LL.B. ( <i>Jefferson Univ.</i> ) 1910	(SS)	Lacon
McDermet, Rudolph—Electrical Engineering M.S., 1914		Seattle, Washington
McJohnston, Harrison—Economics A.B. ( <i>Northwestern Univ.</i> ) 1907		McCutcheonsville, Indiana
McKenna, Edward Lawrence—Economics A.B. ( <i>Columbia Coll.</i> ) 1913 A.M., 1914		Brooklyn, New York
McMillen, George Burr—Railway Administration A.B., 1915		Champaign
McNally, John Leo—Geology (Work for A.B. completed)		Pueblo, Colorado
Maddock, Alice E.—Zoology A.B., 1907	SS	Chicago
Maddock, Kathryn—Scholar in History A.B. ( <i>Rockford Coll.</i> ) 1915		Evanston
Magath, Thomas Byrd—Zoology Ph.B. ( <i>Emory Coll.</i> ) 1913 M.S. ( <i>Millikin Univ.</i> ) 1914		Oxford, Georgia
Mahannah, A. Ernest—Political Science A.B. ( <i>Fairmount Coll.</i> ) 1914		Sedgwick, Kansas
Manuel, William Asbury—Fellow in Industrial Chemistry A.B. ( <i>DePauw Univ.</i> ) 1912	(SS)	Greencastle, Indiana

Marker, Albert Washington—Physics Ph.B. ( <i>Northwestern Coll.</i> ) 1907	Danville
Marshall, Robert Haskell—Mathematics A.B., 1914	Gamaliel, Kentucky
Marvel, Carl Shipp—Scholar in Chemistry A.B. ( <i>Illinois Wesleyan Univ.</i> ) 1915	Midland City
May, Henry Gustav—Zoology B.S. ( <i>Univ. of Rochester</i> ) 1913	Dallas, Oregon
Melrose, Mary Hazel—Education A.B., 1910	Grayville
Meltz, Nathan—Chemistry B.S., 1915	SS New York City
Mengel, George Henry—Organic Chemistry B.S., 1915	SS Moline
Meyer, William—Education B.S., 1912	SS Rock Island
Mickle, Friend Lee—Water Chemistry A.B. ( <i>Allegheny Coll.</i> ) 1911	Garland, Pennsylvania
Mikami, Goro—Economics B.S. ( <i>Waseda Univ.</i> ) 1912	Kopu, Japan
Miles, Lee Ellis—Plant Physiology A.B. ( <i>Wabash Coll.</i> ) 1914	(SS) Crawfordsville, Indiana
Miller, J. Earll—History A.B., LL.B. ( <i>Univ. of Kansas</i> ) 1910, 1912	Champaign
Miller, Mabel Lucile—English A.B., 1912	SS Urbana
Miller, Wilford Stanton—Education A.B., A.M. ( <i>Indiana Univ.</i> ) 1910, 1911	Champaign
Misé, Kozaburo—Civil Engineering C.E. ( <i>Tokio Imperial Univ.</i> ) 1911	(SS) Awadzu, Japan
Mizuno, Tsunekichi—Education A.B. ( <i>Hiroshima Normal Coll.</i> ) 1908	Koizumi, Japan
Mohlman, Floyd William—Sanitary Chemistry B.S., M.S., 1912, 1914	Urbana
Moore, Charles Ruby—Electrical Engineering B.S., E.E. ( <i>Purdue Univ.</i> ) 1907, 1910	Urbana
Moore, Josiah John—Pathology and Bacteriology S.B. ( <i>Univ. of Montana</i> ) 1907	Chicago
Moore, Laura McAllister—History A.B. ( <i>Indiana Univ.</i> ) 1892	SS Terre Haute, Indiana
Moore, Lawrence Shaw—History A.M. ( <i>Harvard Univ.</i> ) 1910	(SS) Champaign
Morgan, Effie Marguerite—Scholar in English A.B. ( <i>Millikin Univ.</i> ) 1913	Springfield
Morkel, William Algernon Kingsmill—Animal Husbandry Diploma ( <i>Gov't Agric. Coll., S. Africa</i> )	Cape Town, South Africa
Morison, Alfred Thorpe—Agronomy B.S. ( <i>Pennsylvania State Coll.</i> ) 1915	Champaign
†Morrison, Roger Leroy—Civil Engineering B.S., 1912	College Station, Texas
Moutray, Madeline—English B.S. ( <i>Columbia Univ.</i> ) 1914	SS New York City
Murphy, Maurice Elgin—Economics A.B. ( <i>Central Normal Coll.</i> ) 1910	(SS) Eldorado
Murray, Forrest Hamilton—Scholar in Mathematics A.B., 1915	(SS) Mason
Myers, John Calvin—Education A.B. ( <i>Northwestern Univ.</i> ) 1912	SS Stockton
Mylius, Louis Aubrey—Fellow in Mining Engineering B.S., E.M. ( <i>Columbia Univ.</i> ) 1911, 1915	Urbana
Nakanishi, Shimaji—Hydro-Electricity Certificate for 148 hours, ( <i>Univ. of Idaho</i> ) 1915	Aichiken, Japan
Nathanson, Jonas Bernard—Physics A.B. ( <i>Ohio State Univ.</i> ) 1912	(SS) Toledo, Ohio
Nebel, Merle Louis—Fellow in Geology B.S., 1913	Urbana
Neill, Alma Jessie—Physiology A.B., 1913	Chillicothe
Newlove, George Hillis—Economics Ph.B. ( <i>Hamlin Univ.</i> ) 1914	Chicago
Nevens, William Barbour—Dairy Husbandry B.S. ( <i>Univ. of Wisconsin</i> ) 1914	Urbana
Newlin, Charles Ivan—Animal Husbandry B.S., M.S., 1912, 1914	(SS) Urbana
Nickoley, Edward Frederick—Economics A.B., A.M., 1898, 1915	Milton, North Dakota Beirut, Syria

Nickoley, Emma May Rhoads—English A.B., A.M., 1899, 1915			
Nordby, Julius Edward—Scholar in Animal Husbandry B.S. ( <i>Univ. of Idaho</i> ) 1915			Beirut, Syria
O'Connor, Ethel Louise—Scholar in German A.B. ( <i>Hedding Coll.</i> ) 1915			Genesee, Idaho
Odell, Arthur Allen—Transportation A.B., 1915			Abingdon
Okey, Ruth Eliza—Chemistry B.S. ( <i>Monmouth Coll.</i> ) 1914 M.S., 1915			Champaign
Olewine, James Harris—Organic Chemistry B.S. ( <i>Pennsylvania State Coll.</i> ) 1915			Kirkwood
Olmsted, Margaret—Scholar in Classics A.B. ( <i>Augustana Coll.</i> ) 1915			Bellefonte, Pennsylvania
Ordonez, Benito Rene—Fellow in Railway Engineering B.S., 1914			Rock Island
Osborn, Howard Grenell—Chemistry B.S. ( <i>Northwestern Univ.</i> ) 1915			Saltville, Mexico
Owens, Albert W.—Inorganic Chemistry B.S. ( <i>Bicknell Univ.</i> ) 1909			Urbana
Palm, Franklin Charles—Fellow in History A.B. ( <i>Oberlin Coll.</i> ) 1914			Lewisburg, Pennsylvania
Parker, Edwin Kenney—Scholar in Entomology B.S. ( <i>Massachusetts Agrl. Coll.</i> ) 1915			Wellman, Minnesota
Parr, Rosalie Mary—Botany A.B., A.M., 1906, 1911			Northampton, Mass.
Partridge, Newton Layman—Fellow in Horticulture B.S., M.S., 1913, 1914	(SS)		Urbana
Pasmore, Daniel Frederick—Fellow in German A.B. ( <i>Albion Coll.</i> ) 1913 A.M., 1914			Chicago
Pearson, Frank Ashmore—Economics B.S. ( <i>Cornell Univ.</i> ) 1912			Swartz Creek, Michigan
Perry, Margaret Campbell—Chemistry A.B., 1915	(SS)		Urbana
Perry, Winifred Almina—English A.B., 1908 A.M., 1914	(SS)		Urbana
Peterson, Alvah—Fellow in Entomology B.S. ( <i>Knox Coll.</i> ) 1911 A.M., 1913			Galesburg
Phelps, James Manley—English A.B. ( <i>Northwestern Univ.</i> ) 1912			DeKalb
Phillips, John Breen—Education A.B., 1912	(SS)		Sullivan
†Pickett, Ray Ernest—Architectural Engineering B.S., 1911			Smithers, B. C.
Pickler, William Eugene—Plant Physiology A.B. ( <i>Wabash Coll.</i> ) 1914			Louisville, Kentucky
Pierce, Thirza May—Education A.B., 1911			Elgin
Portz, Harry Glenn—Chemistry B.S. ( <i>Ohio Northern Univ.</i> ) 1914 B.S. ( <i>Univ. of Chicago</i> ) 1915			Fresno, Ohio
*Potter, Lorain Ogden—Organic Chemistry A.B., A.M., ( <i>Miami Univ.</i> ) 1909, 1910			Eaton, Ohio
Powell, Alfred Richard—Organic Industrial Chemistry B.S. ( <i>Univ. of Kansas</i> ) 1914 A.M. ( <i>Univ. of Nebraska</i> ) 1915			Ottawa, Kansas
Powers, Edwin Booth—Zoology A.B. ( <i>Trinity Univ.</i> ) 1906 M.S. ( <i>Univ. of Chicago</i> ) 1913			Warrahachie, Texas
Putnam, William James—Theoretical and Applied Mechanics B.S., 1910			Urbana
Radcliffe, Barney Simouson—Ceramics A.B. ( <i>Miami Univ.</i> ) 1908			Harrison, Ohio
Randolph, Oscar Alan—Physics B.S. ( <i>Missouri School of Mines</i> ) 1911 M.S., 1913			Urbana
Rayner, William Horace—Education B.S., 1909			Urbana
Read, Mason Kent—Stratigraphic Geology B.S. ( <i>Denison Univ.</i> ) 1914			Springfield, Ohio
Reeve, Ernest James—Political Science Ph.B. ( <i>Western Reserve Univ.</i> ) 1903			Urbana
Reed, James Keel Jr.—Chemistry A.B. ( <i>Wabash Coll.</i> ) 1915			Indianapolis, Indiana
Rees, Edwin Arthur—Organic Chemistry A.B., A.M. ( <i>Univ. of Denver</i> ) 1913, 1914			Garfield, Utah
Renich, Mary Emma—Mathematics A.B., 1911, A.M., 1912			Urbana

\*Deceased Jan. 3, 1916.

†Candidate for professional degree in engineering.

Reyerson, Lloyd Hilton—Physical Chemistry A.B. ( <i>Corleton Coll.</i> ) 1915	Dawson, Minnesota
Rice, John Benjamin—Animal Husbandry B.S. ( <i>Univ. of Nebraska</i> ) 1915	Norfolk, Nebraska
Richardson, Clarence Hudson—Mathematics B.S. ( <i>Univ. of Kentucky</i> ) 1913	SS Buffalo, Kentucky
Ripley, Lewis Bradford—Scholar in Entomology B.S. ( <i>Trinity Coll.</i> ) 1915	Glastonbury, Conn.
Roberts, Elmer—Genetics B.S., 1913	(SS) Urbana
†Roberts, Harry Ashton—Civil Engineering B. S., 1902	Pocatello, Idaho
Robinson, Rodney Potter—Latin A.B., A.M. ( <i>Univ. of Missouri</i> ) 1910, 1911	Perry, Oklahoma
Robinson, William Kean—Bacteriology B.S. ( <i>Maryland Agrl. Coll.</i> ) 1913 M.S. ( <i>George Washington Univ.</i> ) 1915	Franktown, Virginia
Roessler, William Otto—Agronomy (Work for B.S. completed)	Shelbyville
Rogers, Anna Sophie—Psychology A.B., A.M., 1911, 1914	Bushnell
Rolfe, Martha Decete—History B.S., A.M., 1900, 1904	Champaign
Rolfe, Mary Annette—Semitics A.B., 1902	Champaign
Ross, Clarence Samuel—Geology A.B., 1913	Champaign
Ross, John Carl—Chemistry A.B. ( <i>South African Coll.</i> ) 1911	(SS) Sea Point, South Africa
•Roth, William Edward—Mathematics A.B., ( <i>Univ. of Wisconsin</i> ) 1915	Manston, Wisconsin
Rowland, Floyd Elba—Industrial Chemistry B.S. ( <i>Oregon Agrl. Coll.</i> ) 1907 A.B., 1914	(SS) Corvallis, Oregon
Ruehe, Harrison August—Dairy Bacteriology B.S., 1911	Urbana
Rugg, Earle Underwood—Political Science A.B., 1915	(SS) Fitchburg, Massachusetts
Rulison, Harold Kirk—Economics B.S. ( <i>New York State Coll. of Agr.</i> ) 1915	Angelica, New York
Russel, Robert Royal—Fellow in History A.B. ( <i>McPherson Coll.</i> ) 1914 A.M. ( <i>Univ. of Kansas</i> ) 1915	Urbana
Russel, Robbins—Water Chemistry B.S. ( <i>Illinois Coll.</i> ) 1914	Jacksonville
Russell, Frederic Arthur—Fellow in Economics A.B., A.M., ( <i>Albion Coll.</i> ) 1908, 1909	Urbana
Ruth, Warren Albert—Pomology A.B., A.M. ( <i>Wabash Coll.</i> ) 1906, 1909	Urbana
Rutherford, Geddes William—Political Science A.B. ( <i>Columbia Univ.</i> ) 1913	Columbia, Missouri
Sabin, Ethel Ernestine—Fellow in Philosophy A.B., A.M. ( <i>Univ. of Wisconsin</i> ) 1908, 1914	Madison, Wisconsin
Sayre, Rollo Clifton—History B.S. ( <i>McKendree Coll.</i> ) 1909	SS Grayville
Schaarman, Emil Ferdinand—German A.B., 1913, A.M., 1914	Edgington
Schalck, Michael Andrew—Agronomy (Work for B.S. completed)	Butler, Kentucky
†Schladter, Theodore Henry—Architectural Engineering B.S., 1885	Chicago
Schoepperle, Katherine—Fellow in History A.B., 1915	Hamburg, New York
Scholl, Clarence—Fellow in Chemistry B.S., M.S., 1913, 1914	Watseka
Schoonover, Warren Rippey—Agronomy B.S. ( <i>Occidental Coll.</i> ) 1912	Alhambra, California
Schutte, Tenjes Henry—Scholar in Education A.B., 1912	(SS) Lenzburg
Schwing, Edward Albert—Horticulture B.S., 1915	Peoria
•Scofield, Harriet—Scholar in Mathematics B.S. ( <i>Carthage Coll.</i> ) 1915	Carthage
†Scott, James Robinson Jr.—Civil Engineering B. S., 1907	Denver, Colorado
Seely, Fred B.—Theoretical and Applied Mechanics B.S. ( <i>Worcester Polytechnic Inst.</i> ) 1907	(SS) Urbana
Seiler, Eleanor Frances—Scholar in Physics A.B., A.M. ( <i>Univ. of Denver</i> ) 1913, 1914	Denver, Colorado
Sekine, Sentaro—Railway Engineering B.S., A.B., 1913, 1914	Saitama, Japan
Sellards, John Armstrong—Romance Languages A.B., 1912	SS Champaign

\*Candidate for professional degree in engineering.

Sendenburgh, Edith Irene—Scholar in English A.B., 1913		Champaign
Seyster, Ernest Wilford—Zoology A.B., 1915		Champaign
Shaffer, Earl William—Physiological Chemistry (Work for B.S. completed, <i>Illinois College</i> , 1916)		Bridgeport
†Shaw, Benjamin Bruce—Civil Engineering B.S., 1911		McAlester, Oklahoma
Shaw, Hazel Yearsley—Political Science A.B., 1907		Urbana
Shepard, Albert Durand—Animal Chemistry B.S. ( <i>South Dakota State Coll.</i> ) 1914		Brookings, South Dakota
Shiner, Robert Tobias—Animal Husbandry B.S., ( <i>Univ. of Missouri</i> ) 1914	SS	Braymer, Missouri
Shulters, John Raymond—French A.B., 1910		Bristol, New York
Shum, Nim Chi—Chemistry B.S., 1914	(SS)	Canton, China
Skinner, Glenn Seymour—Organic Chemistry A.B., 1914	(SS)	Cherokee, Kansas
Slater, Maynard Elmer—Animal Husbandry B.S., 1915	(SS)	Belvidere
Smith, Ernest James—Scholar in Political Science A.B. ( <i>Lake Forest Coll.</i> ) 1915		Lake Forest
Smith, Guy Watson—Mathematics B.S., M.S. ( <i>Univ. of Colorado</i> ) 1908, 1909		Castle Rock, Colorado
Smith, Irene Fern—Chemistry (Work completed for B.S.)		Red Bud
†Smith, Kenneth Gardner—Mechanical Engineering B.S., 1905		Ames, Iowa
Smith, Merlin Grant—Scholar in Mathematics B.S. ( <i>Greenville Coll.</i> ) 1915		Youngstown, Ohio
Smith, Rose—Botany A.B., 1911	SS	Gibson City
Snapp, Roscoe Raymond—Animal Husbandry A.B., B.S., 1913		Findlay
†Snodgrass, John McBeath—Mechanical Engineering B.S., 1902		Urbana
Soto, Rafael Arcangel—Spanish B.S., A.B., 1912, 1915		Urbana
†Spierling, Arthur Otto—Mechanical Engineering B.S., 1910		Boston, Massachusetts
Spindler, George Washington—Fellow in German A.B., A.M. ( <i>Univ. of Indiana</i> ) 1900, 1908		Woodland, Michigan
Stanford, Howard Russel—Horticulture B.S., 1908		Urbana
Stanley, Thomas Blaine—English Literature A.B. ( <i>Earlham Coll.</i> ) 1913		Noblesville, Indiana
Stanton, William Macy—History of Architecture B.S., M.S. ( <i>Univ. of Pennsylvania</i> ) 1913, 1914		Philadelphia, Pennsylvania
Stark, John Edwin—Economics (Has 132 hours credit)	(SS)	Urbana
Stark, Robert Watt—Agronomy B.S., 1895	(SS)	Urbana
Steele, Annette—English A.B. ( <i>Transylvania Univ.</i> ) 1911		Winchester, Kentucky
Stevens, Wayne Edson—Fellow in History A.B. ( <i>Knox. Coll.</i> ) 1913 A.M., 1914		Avon
Stewart, Jay—Chemistry B.S. ( <i>Ottawa Univ.</i> ) 1912	SS	Ottawa, Kansas
Stice, Henry Sylvester—Education A.B., 1915	SS	Urbana
Stokes, John Edward—History A.B. ( <i>West Maryland Coll.</i> ) 1913	SS	Bridgeport
Stone, Herbert King—French A.B. ( <i>Univ. of Michigan</i> ) 1905		Chicago
Storm, Myrtle Parke—Sociology A.B. ( <i>Eureka Coll.</i> ) 1908		Lexington
Storm, William Homer—Philosophy A.B. ( <i>Eureka Coll.</i> ) 1913		Lexington
Story, Helen Dale—History A.B. ( <i>Monmouth Coll.</i> ) 1912		Chariton, Iowa
Stowell, Charles Jacob—Fellow in Economics B.S. ( <i>Illinois Wesleyan</i> ) 1911		Bloomington
Stunkard, Horace Wesley—Fellow in Zoology B.S. ( <i>Coe Coll.</i> ) 1912 A.M., 1914		Walker, Iowa
Sutcliffe, Emerson Grant—English A.B. ( <i>Harvard Univ.</i> ) 1911 A.M., 1914		Urbana
Swanson, Ruth Pauline—Education A.B. ( <i>Millikin Univ.</i> ) 1908	SS	Hooperston

\*Candidate for professional degree in engineering.

Sweeney, Merle Arthur—Scholar in English A.B. ( <i>Hedding Coll.</i> ) 1913	Prairie City
Swick, Mary Ethel—Philosophy A.B., 1915	Urbana
Swift, Lola Ernesta—Zoology A.B. ( <i>Mt. Morris Coll.</i> ) 1911	DeKalb
Tanabe, Stetfan Fujite—Fellow in Physics B.S. ( <i>Knox Coll.</i> ) 1911	Tokyo, Japan
Tanner, Fred Wilbur—Bacteriology B.S. ( <i>Wesleyan Univ.</i> ) 1912 M.S., 1914	Urbana
Tao, Wen Tsing—Political Science A.B. ( <i>State Univ. of New York</i> ) 1914 A.M., 1915	SS Nanking, China
Templin, Richard Lawrence—Fellow in Theoretical and Applied Mechanics B.S. ( <i>Univ. of Kansas</i> ) 1915	Minneapolis, Kansas
Tendick, Elizabeth—German A.B. ( <i>Illinois Woman's Coll.</i> ) 1913	Canton
Thomas, Abner Royce—Animal Husbandry (Work for B.S. completed)	Big Rock
Thompson, Francis—Education A.B., 1915	SS Pinckneyville
Thorne, Lawrence Emerson—Genetics B.S., 1915	Huntington, Indiana
Thurber, Carryl Nelson—English Literature A.B. ( <i>Cornell Univ.</i> ) 1908	Richmond Hill, New York
Tieje, Ralph Earle—English A.B., A.M., 1910, 1912	(SS) Urbana
Tippett, Ralph Waldo—Chemistry A.B. ( <i>Lawrence Coll.</i> ) 1913 A.M., 1915	Appleton, Wisconsin
Toland, Jessie May—History and Education A.B., 1908	SS Urbana
Trams, Albert Francis—English A.B., 1905	SS Bridgeport
Trowbridge, Mary Luella—Scholar in Classics A.B., 1915	Green Valley
Trelease, Sam F.—Botany A.B. ( <i>Washington Univ.</i> ) 1914	SS Urbana
Tupper, James Oliver—Dairy Husbandry (Work for B.S. completed)	Woodstock
Turner, Frank—Economics B.S., 1914	DuQuoin
Updegraff, Helen—Chemistry A.B. ( <i>Cornell Univ.</i> ) 1915	Vallejo, California
Vallance, Alexander—Theoretical and Applied Mechanics M.E. ( <i>Ohio State Univ.</i> ) 1909	(SS) Urbana
Van Alstine, Ernest—Agronomy B.S. ( <i>Michigan Agr. Coll.</i> ) 1907	Grand Ledge, Michigan
Van Winkle, William Alexander—Chemistry B.S. ( <i>Univ. of Michigan</i> ) 1911	Bay City, Michigan
Vollweiler, Ernest Henry—Organic Chemistry A.B. ( <i>Miami Univ.</i> ) 1914	Shandon, Ohio
Waggoner, Harry Dwight—Plant Physiology A.B., A.M., 1909, 1914	(SS) Urbana
Wait, Bernice—Scholar in Household Science B.S. ( <i>McKendree Coll.</i> ) 1914	Greenville
†Waldo, Edward Hardenburgh—Electrical Engineering A.B. ( <i>Amherst Coll.</i> ) 1898 M.E. ( <i>Cornell Univ.</i> ) 1890 M.S., 1913	Urbana
Walker, Mabel Gregory—History A.B. 1909	Meweauqua
Walker, Quinton Forrest—Economics A.B., A.M. ( <i>Albion Coll.</i> ) 1915	Jackson, Michigan
Walworth, Edward Harvey—Agronomy B.S., 1913	Urbana
Wanzer, James Marshall—Horticulture (Work for B.S. completed)	Oak Park
Warner, Earle Horace—Physics A.B. ( <i>Univ. of Denver</i> ) 1912 A.M., 1914	Urbana
Watkins, Gordon—Economics A.B. ( <i>Univ. of Montana</i> ) 1914	Joliet
Watson, Jane Coulson—Spanish A.B., 1915	Champaign
Watters, James Merton—Education A.E., 1908	SS Palestine
Wead, Grace—English A.B. ( <i>Oberlin Coll.</i> ) 1912	SS Peoria
Weech, John Glen—Economics A.B. ( <i>Knox Coll.</i> ) 1915	Galesburg

\*Candidate for professional degree in engineering.

Weeter, Harry Montgomery—Dairy Bacteriology A.B. ( <i>Allegheny Coll.</i> ) 1911	Fredell, Pennsylvania
Weiland, Henry Joseph—Physical Chemistry B.S. ( <i>Univ. of Rochester</i> ) 1913 M.S., 1915	(SS) Pittsford, New York
Weirick, Robert Bruce—English A.B. ( <i>Colorado Coll.</i> ) 1911 A.M. ( <i>Harvard Univ.</i> ) 1913	Urbana
Weiss, Camillo—Fellow in Civil Engineering C.E. ( <i>Kaiserlich-Koenigliche Technische Hochschule, Vienna, Austria</i> ) 1910	Vicenna, Austria
Wells, Lansing Sadler—Chemistry A.B. ( <i>Univ. of Montana</i> ) 1915	Helena, Montana
Welo, Lars Alvin—Physics B.S. ( <i>North Dakota Agricultural Coll.</i> ) 1911 M.S., 1915	Church's Ferry, N. Dakota
deWerff, Henry August—Agronomy B.S., 1914	Farina
Westergaard, Harold Malcolm—Fellow in Structural Engineering B.S. ( <i>The Royal Technical Coll. of Copenhagen</i> ) 1911	Copenhagen, Denmark
Westhafer, Terrence Onas—Chemistry A.B. ( <i>Univ. of Oklahoma</i> ) 1914	Buffalo, Oklahoma
Whisenand, James Wilbur—Animal Husbandry B.S. ( <i>Univ. of Nebraska</i> ) 1914	(SS) Harvard, Nebraska
White, Leila Olive—History A.B. ( <i>Rockford Coll.</i> ) 1914 A.M., 1915	Rockford
Whitford, Robert Calvin—English A.B. ( <i>Coll. of the City of New York</i> ) 1912 A.M. ( <i>Columbia, Univ.</i> ) 1913	New York City
Whitmire, Laura Gwendolen—English A.B., 1914	Urbana
Wichers, Edward—Inorganic Chemistry A.B. ( <i>Hope Coll.</i> ) 1913 M.S., 1915	Zeeland, Mich.
Wichmann, Gerold Carl—Psychology A.B. ( <i>Univ. of Chicago</i> ) 1914	Laramie, Wyoming
Wiedrich, Jacob Christian—Education A.B. ( <i>Coll. of Emporia</i> ) 1913	Princeton
Wilcox, Roy Harold—Animal Husbandry B.S. ( <i>Minnesota Agricultural Coll.</i> ) 1915	Minneapolis, Minnesota
Wilkinson, Jackson H.—Hydraulics A.B., 1915	Bethany
Williams, Arthur Edwards—Ceramics B.S., 1910	Urbana
Williams, David Willard—Scholar in Animal Husbandry B.S. ( <i>Ohio State Univ.</i> ) 1915	Urbana
Wilson, William Harold—Mathematics A.B. ( <i>Albion Coll.</i> ) 1913 A.M., 1914	Champaign
Winkelmann, Herbert August—Chemistry B.S. ( <i>North-Western Coll.</i> ) 1914 M.S., 1915	Appleton, Minnesota
Wolf, Otto Fred—Civil Engineering B.S., 1910	Des Plaines
Wollenhaupt, Walter Franz—Education Ph.B. ( <i>Iowa Wesleyan Univ.</i> ) 1908	SS Hume
Woolbert, Charles Henry—Psychology A.B. ( <i>Northwestern Univ.</i> ) 1900 A.M. ( <i>Univ. of Michigan</i> ) 1909	(SS) Urbana
Worthen, Jeannette Lamb—English A.B., 1907	Warsaw
Wriedt, Christian—Genetics Degree in Agriculture ( <i>Univ. of Christiania</i> )	Christiania, Norway
Wright, Allen Thurman—English A.B., 1913	Franklin
Yapp, James Fook Onn—Civil Engineering B.S., 1915	Honolulu, Hawaii
Yapp, William Wodin—Genetics B.S., 1911	Urbana
Yensen, Trygve—Electrical Engineering B.S., 1907	(SS) Christiania, Norway
Yntema, Leonard Francis—Chemistry A.B. ( <i>Hope Coll.</i> ) 1915	Holland, Michigan
Young, Esther—Plant Pathology A.B. ( <i>Miami Univ.</i> ) 1914	Indianapolis, Indiana
Young, Everett Gillham—Fellow in Railway Engineering B.S., 1913	Denver, Colorado
Zieserheim, Joseph Rossiter—Animal Husbandry B.S. ( <i>Pennsylvania State Coll.</i> ) 1915	(SS) Avonia, Pennsylvania
Zimmerman, Robert Paul—German A.B., 1913	Champaign

## UNDERGRADUATE AND PROFESSIONAL COLLEGES AND SCHOOLS IN URBANA

(Including the Colleges of Liberal Arts and Sciences, Commerce and Business Administration, Engineering, Agriculture, and Law, the Library School, and the School of Music)

### ABBREVIATIONS

#### Curriculums

A	Architecture	LAS	General Liberal Arts and Science
AE	Architectural Engineering	Lb	Library Science
Agr	Agriculture	Med	Medical Preparatory
CE	Civil Engineering	ME	Mechanical Engineering
CerE	Ceramic Engineering	MnE	Mining Engineering
Ch	Chemistry	MSE	Municipal and Sanitary Engineering
ChE	Chemical Engineering	Mus	Music
Com	Commerce and Business Administration	RCE	Railway Civil Engineering
EE	Electrical Engineering	REE	Railway Electrical Engineering
HSAgr	Household Science, Agriculture	RME	Railway Mechanical Engineering
HSLAS	Household Science, Liberal Arts and Sciences	SS	Summer Session

I. Law

Name	Curriculums	Credit Hours*	Residence
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Aaron, Samuel Arthur	ME		Chicago
Aarvig, Truman Obet	CerE	10	Pontiac
Abbott, Howard Green	Agr	33	Morrison
Abbott, Robert Edward	CE	5½	Chicago
Abrams, Elia	ChE	56½	Chicago
Abt, Burl Raynond	HSLAS	56½	Chicago
von Ach, Frank	ME		Chicago
Ackerson, Esther Mae	Com	33	Davenport, Iowa
Ackert, Alice Nowell	HSLAS	66	Westfield, Indiana
Ackert, Harris Leroy	HSagr (SS)	41	Dixon
Adams, Allan Madison	Agr	65	Urbana
Adams, Ethel Irene	Agr	35	Buffalo, Wyoming
Adams, Leota Valentine	Mus		Princetonville
Adams, Owen Dallas	LAS	54	Salem
Adams, Pauline Hopkins	Agr		Grand Rapids, Michigan
Adams, Sidney William	LAS	103	Rossville
Adams, Warren David	AE		Scales Mound
Adams, William Clarence	CE		Alton
Adelshberger, Bransford Louis	Med	33	Waterloo
Ader, Mrs. Annie L. Payne	Agr		Wabash, Indiana
Adler, Eugene Max	Com		Mattoon
Adler, Leon	ChE	86	St. Louis, Missouri
Adolph, Milton Arthur	Agr		San Jose
Adsit, Lois Cornelia	HSLAS		Wellington
Agee, Mrs. Nellie	HSagr sp	12	St. Louis, Missouri
Agg, Sarah	HSagr	65	Urbana
Agnew, Beulah Irene	LAS	66	Villa Grove
Ahlers, Ophelia	LAS		Staunton
Aid, Harry	EE		Gallatin, Missouri
Ainsworth, Joseph Homer	Agr	18	Havana
Ainsworth, Madalane Zelomia	LAS	24	Chicago
Ainsworth, William Howard	Agr	35	Mason City
Ainsworth, Zelonia	SS		Chicago
Albaugh, Hazel Lowell	Com	63½	Edmore, Michigan
Albaugh, Kathryn Rebecca	HSLAS	25	Berwyn
Albee, Chester Leon	Agr	62	Chicago
Albrecht, Daniel Arthur	LAS	102	Champaign
Albright, Joseph Clarence	ME	54	Attica, Indiana
Alcock, Warren Joseph	ME	39	Chicago
Alesen, Louis Albert	Med	32	Chicago Heights
Aleshire, Margaret	HSLAS		Hyde Park
Alexander, John Alva	LAS (SS)	122½	Urbana
Alexander, Louis Jessup	A		Long Beach, California
Alexander, Robert P.	Com		Belleville
Alimullah, Mohamed	LAS sp		Gurdaspur, India
Allaben, Everett	Agr		Rockford
Allais, Eugenie	LAS	98	DeQuin
Allan, Carlisle Visscher	A	36	Omaha, Nebraska

\*Computed October 1, 1915

## University of Illinois

Allan, Robert Howard	Agr	33	Winchester
Allen, Alice Alexandria	HSLAS	125	Urbana
Allen, Cecil Violet	HSLAS		Broadlands
Allen, Clyde Harlan	Com		Winnebago
Allen, Ernest Victor	MnE	124½	Pana
Allen, Frank Oscar	LAS (SS)	112	Clinton
Allen, George Albert	Med	33	Clinton
Allen, Harriet Ethel	SS		Waverly
Allen, Hester Ada	HSagr	64	Delavan
Allen, Louis A.M., 1915	SS		Clinton
Allen, Lucy Elizabeth	HSagr	73	Delavan
Allen, Lura Edna	SS		Waverly
Allen, Lucile Marie	SS		St. Louis, Missouri
Allen, Moffet Barrows	Agr	20	Harristown
Allen, Paul Glen	LAS	115	Chicago
Allen, Paul William	SS		Champaign
Allen, William Robert	AE		Peoria
Allison, Jay Malcom	Com	73½	Downers Grove
Allison, Worth Arthur	Agr	135	Charleston
Allman, John Claude	CE		Crown Point, Indiana
Allyn, Hester Anne	HSLAS	63	Modesto
Allyn, Norman	LAS		Springfield
Almond, Harry Havens	Com	57	Anderson, Indiana
Alverson, Ruth Amelia	LAS	31	Urbana
Alvord, Genevieve Raymond	LAS	98	Urbana
Alwood, Clyde Gobel	Agr	63	Clinton
Alyea, Melvil Carlyle	SS		Earlville
Amana, Alfred	LAS		Honolulu, Hawaii
Amborn, Louise	LAS	99	Fort Madison, Iowa
Ambruster, John Rea	Agr	65	Chicago
Ames, Albert Carder	LAS	65	Riverside
Ames, Waldo Boynton	Com	55	Oak Park
Amiott, Charles Noah	SS		Fitchburg, Massachusetts
Amos, Douglas Jacques	Agr	102	Cairo
Amsbary, Paul Donald	A	104	Urbana
Anastassiades, Ernest	CE	36	Turkey
Anderson, Carl Leonard	Com	33	Hudson, Wisconsin
Anderson, Carl Ludwig	SS		Rock Island
Anderson, Charles Patrick	Com	26	Chicago
Anderson, Charles Wesley	LAS	68½	Dixon
Anderson, Clarence	EE	35½	Taylorville
Anderson, Jennie	LAS		Urbana
Anderson, Joshua Clayton	Agr (SS)	96	Williamsport, Indiana
Anderson, Lucille Marian	HSLAS		Martinsville, Indiana
Anderson, Olive Matilda	HSagr	63	Chicago
Anderson, Owen Huntington	ME	105	Chicago
Anderson, Paul Alexander	LAS		Chicago
Anderson, Perry John	Com (SS)	28	Urbana
Anderson, Roy B	Agr (SS)	35½	Winnebago
Anderson, Roy William	Agr	58	Oregon
Anderson, William Wilson	Agr	92	Ohio
Anderst, Fred	SS		Morris, Minnesota
Andreas, Lewis Peter	Com		Sterling
Andrews, Elizabeth	HSLAS		Urbana
Andrews, Harry	SS		Washburn
Andrews, John Harley	Com		Champaign
Andrews, Leonard Elmer	Com	8	Oak Park
Andrews, Mary Alberta	HSLAS	30	Pana
Andrews, Nellie Eulalie	HSLAS	51	Hebron
Andrews, Robert Eugene	Agr	31	Chicago
Andrews, Roscoe Crum	L	104	Mattoon
Andrews, Ruth Helen	LAS		Urbana
Andrist, Victor Rudolph	Com		West Concord, Minnesota
Angus, Gaylord Benton	CE		Chicago
Angus, Gaylord Benton	SS		Chicago
Antkerson, Helen	A	35	Hamilton, Ohio
Antenen, Harry George	Agr	50	Glencoe
Antoszewski, Robert Horatius	Agr	69	Chicago
Appelgran, Clarence Oliver	Agr	33	Robinson
Apple, Russell Evans	Agr		Anderson, Indiana
Applegate, George Evert	SS		Atlanta
Applegate, Ruth	L	15	Brimfield
Arber, Frederick Verne	Agr	90	Brockton
Arbuckle, Leon	EE		Brookfield
Archbold, Harold Herbert	LAS	66½	Peoria
Archer, Olin Wellington	HSLAS (SS)	62	Champaign
Arends, Annis Lilian	Agr	70	Melvin
Arends, Arthur	Ch	34	Joliet, Illinois
Arentz, Elizabeth	EE		Fowler, Indiana
Argo, David	Mus	33	Dixon
Armington, Clara Grace	LAS		Tolono
Armstrong, Alice Nona	LAS		Kansas City, Mo.
Armstrong, Arlo James W.	LAS	33	Metropolis
Armstrong, Donald Alfonso	LAS		Newton, Iowa
Armstrong, Della	SS		Champaign
Armstrong, Elizabeth Emily	LAS	29	Champaign
Armstrong, Hazel Irene	Mus		River Forest
Armstrong, Horace	Com	28	

Armstrong, John Harold	Agr (SS)	69	Champaign
Armstrong, Oliver Milton	ME	31	Kansas City, Missouri
Armstrong, Paul Leo	LAS	31	River Forest
Armstrong, Thomas Hunter	LAS		Mound City
Arndt, Paul	Agr	59	St. Charles, Missouri
Arnett, Anna Ruth	LAS		St. Louis, Missouri
Arnold, Howard Shaver	Agr	52	Ottawa
Arnold, Orville Dayton	LAS		Browning
Arntzen, Inga Irene	LAS	65½	Sycamore
Arter, Eugenia Jenkins	LAS		Danville
Asai, Seiji	Com	49	Kyoto, Japan
Ash, Ian Henry	Agr		Oneida
Ash, James Landreth	LAS	30	Philadelphia, Pennsylvania
Ashheck, William Louis	AE	118	Chicago
Ashman, Oscar Harold	AE	70	Elgin
Atkins, Bessie May	HSAgr	39	Evansville, Indiana
Atkins, Millicent	HSLAS		Evansville, Indiana
Atkinson, Donald Samuel Peabody	Com	20	Champaign
Attebery, Hazel	Com	26	Hillsboro
Attebery, Homer Franklin	Agr	97	Hillsboro
Atwell, Donald Burgess	LAS		Park Ridge
Au Buchon, Joseph Montgomery	EE	36	Oak Park
Augustus, Lalah Marie	HSAgr	76	Champaign
Augustus, Ralph Edgar	Agr	107½	Champaign
Auld, Ernest Roland	AE	33	Martinsville
Austin, Milton	Agr		Effingham
Auten, John Thompson	AE	109½	White Hall
Avery, Guy Thomas	ME	71½	Three Rivers, Michigan
Avery, Rowland Alonzo	Agr	34½	Santa Fe, New Mexico
Avey, Helen	HSLAS		Mattoon
Axline, Edward Springer	Com	66½	Wenona
Babcock, Dan	AE	73	Anderson, Indiana
Babcock, Jennie May	HSLAS	98	Danville
Bach, Bernice	LAS	16	Chicago
Bachman, Alta Marie	Music		Tiskilwa
Bacon, Carl Alfons	ME	36	Chicago
Bacon, Oliver Greene	Agr	58	Harlan, Iowa
Bacon, Robert Hamilton	EE	85	Pasadena, California
Bader, Iris Lucile	HSAgr		Kansas City, Missouri
Badger, Carroll John	Agr	8	McGraw City, Tennessee
Badger, Eunice Louise	LAS (SS)	38	Riverside
Badollet, Marion Smith	LAS		Vincennes, Indiana
Baechtold, Elsie Louise, A.B. ( <i>Grinnell Coll.</i> )	Lb	51	Talladega, Alabama
Baer, Sandford Joseph	LAS		Murphysboro
Bahe, Dorothy Virginia	LAS		Maywood
Bailey, Earl Willis	LAS (SS)	30	Boody
Bain, Wallace Bothwell	Agr		Martinsville, Indiana
Baird, Ernest	Agr	92	Minneapolis, Kansas
Baird, Grace Jean	SS		Urbana
Baker, Charlotte Phelps	SS		Sullivan
Baker, Clarence Everett	Agr		Champaign
Baker, Earl Boggess	CerE		Fairmount
Baker, Ernest Monroe	SS		Rome, New York
Baker, Ferne	LAS	20	McLean
Baker, Fred Phelps	CE	37	Denver, Colorado
Baker, Gerald Clifford	CE	65	Bement
Baker, Leon Joseph	A	37	Fort Wayne, Indiana
Baker, Walter Earl	Com	105	Bement
Bakhshi, Sarva Rupa	RCE	115½	Kashmir, India
Balbach, Nyle Jacob	Com (SS)	30	Chenoa
Balch, Nellie Allison	HSAgr		Lerna
Balderson, Ted Albert	AE	72	Wilber, Nebraska
Baldwin, Janet Christine	LAS (SS)	94	Paris
Baldwin, Leo Starr	AE	176	Freeport
Baldwin, Leonard Leslie	Com		Bridgeport
Baldwin, Margaret Helen	LAS	61	Ottawa
Baldwin, Milton Ford	LAS		New Haven, Connecticut
Balkema, Salome Rose	LAS	99	Chicago
Ball, Frederic Dunham	LAS	26	Clinton
Ball, Mary Elsie	HSLAS	65	Rossville, Indiana
Ballard, Louise Myers	SS		Chenoa
Ballinger, Emma Matilda	LAS	42	Upper Alton
Ballinger, Ione Fredericka	HSLAS		Chenoa
Balthorpe, Elizabeth Margaret	SS		Quincy
Bame, Robert William	CE sp		Buffalo, New York
Bamesberger, Velda Christena	LAS (SS)	37	Champaign
Bamford, Thomas	Agr	36	Lancashire, England
Bancroft, Anna Dewey	LAS		Maywood
Bandy, Lorenson	ME		Lake City
Bangert, Clarence John	Agr		Chicago
Bannister, John Howard	Agr	28	Kewanee
Barackman, Hazel B.	HSAgr		Streator
Baraglia, Anthony Victor	ME		Chicago
Barber, Franklin Brown	Agr	23	Gibson City
Barber, Harold William	Agr	33	LaSalle
Barber, Hillis Elwyn	Agr	32	LaFox

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Barber, John Kenneth	LAS (SS)	95½	LaFox
Barber, Wilbur Barrett	EE	41	Joliet
Bardwell, Anna Laura	HSLAS	116	Aurora
Bardwell, Conrad Morton	LAS		Aurora
Bargh, George Holbrook	L	10	Kinnmundy
Barker, Edwin Franklin	ME	113	Rock Island
Barkley, Rupert Randolph	SS		Cuero, Texas
Barkman, Marcus Glazer	Com	25	Princeton
Barkow, Emory Merrill	Agr	14½	Chicago
Barkstrom, Edward Carl	ME	100	Chicago
Barnes, Clifton Eugene	ChE		Albion
Barnes, Donald Jerome	LAS	31	Pekin
Barnes, Earl Couvis	REE	63	Decatur
Barnes, Harold John	A	72	Joliet
Barnes, Helen Miriam	LAS		Washburn
Barnes, Howell Hart	A		Chicago
Barnes, Mary Grace, A.B. (Purdue Univ.) 1894	lb		La Fayette, Indiana
Barnes, Otis Avery	ChE	109	Auburn
Barnes, Russell Daniel	AE	111	Taylorville
Barnes, Ruth Lillian	LAS	55	River Forest
Barnes, Winifred	LAS	32	Kansas City, Missouri
Barnett, Herman Kohlsaat	LAS	15	Chicago
Barnum, Richard Fyfe	ME	99	LaGrange
Barr, Forest Astley	EE		Oak Park
Barr, Lola Rea	SS	11	Greenville
Barr, Oren Augustus	SS	8	Eldorado
Barrett, Arthur Ernest	Com		Clinton, Iowa
Barrett, Frank Newton	Aer	46	Chicago
Barrett, Lawrence Horatio	Agr		Galena
Barringer, Paul Charles	Agr		Jonesboro
Barry, Evelyn Elizabeth	SS		Ottawa
Barry, Jennie Eulalia	LAS	45	Champaign
Barry, Mary Cordelia	SS		Champaign
Bartels, Minnie	LAS	53	Chicago
Bartels, Nellie Flora	LAS	117½	Edwardsville
Barth, Edward Fred	Agr		Pana
Bartholomew, Herbert	Com		Indianapolis, Indiana
Bartholow, James Summerfield	LAS	104	Mt. Vernon, New York
Bartlett, Harry Owen	A	70	Eau Claire, Wisconsin
Bartlett, Lowell Wilson	Com		Rockford
Bartley, Charles Austin	Agr		Chicago
Bartley, John Solomon	A	108	East Waterloo, Iowa
Bartling, Arthur William	EE		Litchfield
Barto, Harriet Thompson	HSLAS	103	Urbana
Barto, Margaret Murray	HSLAS	70	Urbana
Bartos, Bohuslav	CE	13	Chicago
Bash, David Anderson	Ch		Hannibal, Missouri
Bass, Ozela Zenadia	SS	4½	Quincy
Bates, Charles Emmett	CerE	59	Galesburg
Bates, Ruth Elizabeth	SS		Baton Rouge, Louisiana
Batson, John Thaddeus	ChE	26	Marshall
Battey, Bradford Reed	Com	67	Tiskilwa
Battey, Zilpha Curtis	HSLAS	70	Tiskilwa
Battrell, Frank	SS	6½	Rushville
Bauder, Lewis Augustus	Agr	64	Berwyn
Bauer, Ezra Edward	CE		Toledo, Ohio
Bauer, Irving Newell	Agr		Compton
Baumann, Charles Page	SS		Rantoul
Baysinger, Bertha	LAS		Aurora
Baysinger, Walter George	Agr		Aurora
Beach, Alice Leslie, A.B. (Univ. Minnesota) 1913	lb		Hutchinson, Minnesota
Beach, Amy Adaline, A.B., 1914	SS		Champaign
Beach, Frank Herman	LAS	100	Champaign
Beal, Walter Hubert	L	14	Moline
Beals, Clarence Hubert	Agr		Galva
Bean, Lillian Bertha	LAS	67	Blue Mound
Bear, Bess	LAS		Ludlow
Bear, Chester Randall	Com	40	Ludlow
Beard, Odian Swain	LAS		Shabbona
Beardsley, Henry Scovell	Agr	48½	Kansas City, Missouri
Beatty, Edward Corbyn Obert	LAS	100	Quincy
Beatty, Owen Chauncey	Agr	33	Urbana
Beaubien, Warren Platt	AE	112	Whiting, Indiana
Beauchamp, Pearl Edith	LAS		Arenzville
Beavers, Harrison Bruce	Com		Washington, D. C.
Bebb, Edwin Adams	Agr	110	Chicago
Bebb, Forrest	Agr	105	Muskogee, Oklahoma
Beck, Gerald Eugene	A		Long Beach, California
Beck, Louisa	SS	6	Pekin
Beck, Ruth Marie	HSLAS	33	Champaign
Becker, Harry Francis	SS		Knoxville
Becker, John Greenleaf	SS		Campbell, Missouri
Becker, Lewis Michael	ME	112	Quincy
Becker, Paul	ME	75	Berwyn
Becker, Walter Henry	Com (SS)	57	Chicago
Beckwith, Allen Eugene	Agr		East St. Louis,

Bee, Winifred Marian	LAS	34½	Chicago
Beebe, Horace Newell	CE		Chicago
Beers, Otis Edward	ME	88	Elkhart, Indiana
Bethel, Wesley Arthur	A	72	Lake Bluff
Behr, Herbert Richard	EE	112	Chicago
Behrens, Martin Albert	Che		Crete
Behrensmeier, Helen	LAS	97½	Quincy
Beidelman, Jennings Clyde	A	29	Naperville
Beidler, Herbert Bishop	A		Auburn, Indiana
Beifuss, Edwin Louis	Agr	137½	Chicago
Beilin, David Solomon	SS	59	Wilmette
Bell, Cecile Mary	LAS		West York
Bell, Harrington Alexander	Com	41½	Oak Park
Bell, Harry	SS		DeSoto, Iowa
Bell, John Haslett	Agr	34	Rushville
Bell, Kenneth Corwin	Com	96	Robinson
Bell, Norma Elizabeth	LAS	71	West York
Bellamy, John William	AE		Sandoval
Belleff, Vladimir Tanee	LAS		Stromitsa, Bulgaria
Belnap, Nuel Dinsmore	L	49	Washington, D. C.
Belslow, Charles Franklin	ME	108	Rockford
Beltz, John Shafer	EE	108	Nickerson, Kansas
Bemis, Thomas Jr.	ME		Indianapolis, Indiana
Bench, Stella Louise	SS	80	Galena
Bender, John Rhinehold,	SS		Manhattan, Kansas
Benedict, Irvin Charles	Com		Savanna
Benedict, Ralph Preston	Com		Omaha, Nebraska
Benham, Norman Beach	LAS	24	Crothersville, Indiana
Benner, Arthur Jacob	CerE	135	Chicago
Benner, William Jacob	CerE	130	Chicago
Bennett, Basil	Agr	33	Dudley
Bennett, Frank Luvern	Agr (SS)	114	Cortland
Bennett, Hazel Marguerite	HSLAS	99	Washington
Bennett, Marie	HSLAS		Champaign
Bennett, Parker William	Com		Metcalf
Bennett, William Lee	Agr sp		Urbana
Benson, Eugene LeRoy	CE		Batavia
Benson, Keith William	Com		Sterling
Benson, Merrill Manning	Com	26½	Sterling
Benson, Susan True, A.B. (Missouri Wesleyan Univ.) 1909			
Benton, Frank Washington	Lb		Urbana
Bentz, Clarence Louis	SS	6½	Worthington, Pennsylvania
Berg, Ben Conrad	AE		Chicago
Berg, Fred Leonard	LAS	103	Crystal Lake
Berger, Cora	Com	19	Moline
Berger, Irene Mae	LAS	31	Davenport
Bergeson, Ernest Darwin	LAS	70	South Holland
Bergner, Nils John Andrew Jr.	Agr	12	Earlville
Berlin, Marie Valentine	EE		Chicago
Berline, Henry Lee	LAS	105½	Chicago
Berline, Mildred Lee	Agr	70	White Hall
Bernard, Clifford Shaffer	AE	63½	White Hall
Berner, Louis Rolland	ChE	32	Wellman
Bernhardt, Josephine Elizabeth	LAS (SS)	98	Indianapolis, Indiana
Bernstein, Charles	EE		Collinsville
Bernstein, Martin	CerE	72	Oglesby
Berryman, Paul Ruytter	Com	34	Chicago
Beshears, Paul Carlyle	ME		Downers Grove
Bess, Stanley John	ME (SS)	71½	El Paso
Best, Lawson Chester	CE		Rosanond
Best, Leon Henson	Com	30	Boswell, Indiana
Beust, Carl	Agr	15	Galva
Bevis, Albon Ledru	Com	99½	LaCrosse, Wisconsin
Beyer, Charles Anthony	SS	4½	St. Louis, Missouri
Beyer, Elizabeth Gunder	HSLAS (SS)	102	Rockford
Beyer, Verne Charles	EE	24	Logansport, Indiana
Bickel, John Joseph Jr.	A		Princeton
Bierbaum, Elmer Alfred	Agr	34	Chicago
Bigel, William Jr.	Agr	84	Alton
Bigelow, Lorene E. M.	Mus sp		Chicago
Bigelow, Lucile L.	Mus sp		Westfield
Bigelow, Roy St. Lawrence	REE	66	Chicago
Bilderback, Byron	Com	36	Champaign
Bilik, Samuel	LAS (SS)	3½	Franklin Park, New Jersey
Billman, Dale	LAS		East St. Louis
Billman, Elliott	L	61	Dayton, Ohio
Billman, Harry Carl	SS		Aurora
Binder, George Frederick	Agr	50	Urban
Bing, Bertha Helen	LAS	38	River Forest
Bingham, Charles Lathrop	Com	24	Wichita, Kansas
Bingham, William Frederick	SS		Danville
Birch, Stephen Meserve	Com	40½	Urbana
Birchard, John Wesley	LAS (SS)	65	Urbana
Birchard, Leola Mary	HSagr	30	Urbana
Birdsall, Lloyd Burton	Agr	26	Sterling
Birks, John Milton	Agr	32	Cornland

Birong, Helen Margaret	SS	8½	Chicago
Bishop, Jessie Elizabeth, A.B., 1911	Lb	33	Evanston
Bishop, Walter Giles	A		Auburn, Indiana
Bjelland, Harold Gerhard	Agr	32	Iceland
Black, Beryl A.	SS	12	Paris
Black, Ernest Glenn	LAS		Rushville
Black, Robert Sommerville	ME	87	Mendota
Blackall, Alfred Harris	SS	31	Chicago
Blackburn, John C.	SS	3	Columbia, South Carolina
Blackburn, Luella Sarah	SS	5½	Jacksonville
Blackstone, Abraham	CE	31	Chicago
Blair, Daniel Augustus	LAS		Murphysboro
Blair, Edgar Theron	LAS	41	Chandlerville
Blair, Hattie Mary	SS		Salem
Blake, Clarence Sidney, A.B. (Olivet Coll.)	SS		Grand Rapids, Mich.
Blake, Jesse Harold	L	14	Chicago
Blake, John Dullam	LAS		Rockford
Bleisch, Selmar Anton	L	64	Alhambra
Bleuel, Marie Teresa	LAS	118	Chicago
Bliss, Stanley Waters	A		Hope, Arkansas
Blix, Einar Thomas	AE		Fargo, North Dakota
Block, Edward Stevenson	Agr	102	Chicago
Block, Frieda Emma Alvina	Mus (SS)	85	Champaign
Blohm, George Charles	LAS	73½	Chicago
Blood, Alan St. Clair	Agr		Grayville
Bloodgood, Wylie	A		Aurora
Bloom, Peter Earl	Agr	19	Caddo, Oklahoma
Bloomfield, Alice Sayles	SS	19	Urbana
Bloomingdale, Paul Harold	SS	7½	Shabbona Grove
Blue, Harry J.	SS	19	Salem
Bluestein, Irwin Jerome	Agr		Chicago
Bluhm, Harold John	ChE	75	Chicago
Blum, Harry John	Com		Chicago
Boardman, Curtis Love	A	35	Hooperston
Bockemohle, Clinton L. A.	AE	137½	Ellinwood, Kansas
Bockhoff, Harry William	ME		Richmond, Indiana
Bodenschatz, Arthur Harold	ME	3	Chicago
Boerner, Eugene Sonnerberg	Agr	59	Port Washington, Wisconsin
Boeschenstein, Harold	Com	33	Edwardsville
Boggs, Hsi Fan	Com	106	Shanghai, China
Boghasian, Melton Horsep	SS	71	Teheran, Persia
Bogue, Arthur Reuben	Med	33	Savanna
Bohrer, William LeRoy	Com		Falls City, Nebraska
Bolen, Mahel Helen	LAS	33	Kansas City, Missouri
Boles, Ewing Thomas	SS	8½	Williamstown, Kentucky
Boles, Stanley Atwood	SS		Williamstown, Kentucky
Boleyn, Charles John	Agr	24½	Oak Park
Bolinger, Emerson Franklin	EE	112	New Holland
Bolling, Robert Hill	Agr	30	Chicago
Bollman, Irene Lucille	Mus		Tuscola
Bollman, Jesse Louis	Med	51	Springfield
Bollman, Marie Christine	SS		Champaign
Bolton, Ralph Waldo	EE (SS)	43½	Champaign
Bolton, Wyman Jesse	ME	38	Nauvoo
Bond, Ethel, B.L.S., 1908	SS		Champaign
Bond, Lyda, A.B., 1906	HSLAS		Urbana
Bon Durant, Walter Hontom	Com		South Bend, Indiana
Bonnen, Clarence Alfred	Agr		Gibson City
Bonner, Arthur Lee	ME	30	Champaign
Boomer, Ruth Lillian	SS		Tolono
Boone, Bonnie Ellyn	Mus		Cleveland, Ohio
Boone, Odie Vern	SS		Newcastle, Pennsylvania
Booth, Lyman	Agr	65½	Marshall
Booth, Norman Ralph	Agr	16	South Bend, Indiana
Borah, Loco Wilson	Com (SS)	33	Urbana
Borch, Ruth Halley	SS		Chicago
Borg, Elmer Ambrose	Agr	33	Staunton, Iowa
Borgerding, Jerry William	SS		Muskegon, Michigan
Borman, Mabel Mae	LAS		Morrison
Born, Charles Edgar	Agr	34	Cerro Gordo
Born, Katherine Lois	HS Agr (SS)	71½	Champaign
Born, Ray	Com	82	Champaign
Born, Russell	ChE		Champaign
Borton, Cecil Walden	Com (SS)	66	Urbana
Borucki, Louis Francis Felix	ME	39	Chicago
Boston, Paul McConley	Com	64	Yorkville
Bosworth, Walter Henry	Com	34	Elgin
Bote, William Adam	SS	5	Pana
Bourassa, Reginald Pierre	Agr	96	Westfield, Massachusetts
Bouton, Charles Sherman, Jr.	Agr		Springdale, Arkansas
Bovard, Millard Forrest	LAS	28	Marsailles
Bowditch, Fred Tryon	EE		Urbana
Bower, Paul Eugene	Agr	69	Champaign
Bowersock, William Michael	EE	32	Maroa
Bowles, Walter Sheriff	MSE		Springfield
Bowlus, Hazel W., A.B., 1915	SS		Urbana

## Undergraduate Students

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Bowman, Emily Maurine	LAS	47	Pierceton, Indiana
Bowman, Mabel	LAS	60	Danville
Boyd, Albert Matthew	CerE		Bradford
Boyd, Leo Lorraine	Ch		Herrin
Boyd, Marian Cummings	LAS	67	Sherwood
Boye, Walter Fred	LAS	111	Urbana
Boyle, Esther Hortense	HSAgr	32	Hennepin
Boyle, Harold Ambrose	Com		Chicago
Boyle, Violet Beatrice	HSAgr		Hennepin
Boynton, Jay Farnham	Agr	3	Pleasant Plains
Bradley, John Thomas	Com	96	St. Louis, Mo.
Bradley, LeRoy	AE	72	Ft. Wayne, Indiana
Bradley, Loyd	L	72	Carbondale
Bradley, Lucile	SS	105	Carbondale
Bradley, Marie Lynn	SS	13	Princeton
Brady, George Keyports	LAS (SS)	96	Brooklyn, New York
Brady, Margaret Mary	LAS		Chicago
Brady, May Frances	LAS		Champaign
Bragg, Lena	SS		Monticello
Brain, Oliver Galbraith	EE	35	Chicago
Bramlet, Hubert Butler	LAS	69	Eldorado
Brams, Julius	Med		Chicago
Branch, Nelle Uree, A.B., 1907	Lb	56	Champaign
Branch, William Ralph	Agr	66	Champaign
Brandner, Emil George	LAS	112	Chicago
Brandon, Eugenie Josephine	LAS	61	Farmer City
Brandon, Joseph Franklin	Agr	102	Washington, Indiana
Brandt, Frederick Marius	Com		Los Angeles, California
Brandt, Richard Clarence	ME	34	Evanston
Braun, George, Jr.	AE	5	Chicago
Braun, Richard George	AE	66	Hamilton, Ohio
Brauns, Helen Marie	HSAgr		West Chicago
Braunsdorff, Reginald Kenneth	EE	37	Mattoon
Bray, Leonard Theodore	A		Ironwood, Michigan
Brazeau, Eugene Francis	Com	62½	New York City
Brazeau, Guy Stanton	AE		Nekoosa, Wisconsin
Brazelton, Calanthe Miriam	LAS	34	Greensburg, Indiana
Brede, Lothar Homer	Ch	33	Collinsville
Breece, Howard David	LAS	30	Mt. Vernon, Indiana
Breedis, John	Ch (SS)	100½	Urbana
Breese, Carl Shipman, B.S. (Kansas Agr. Coll.) 1912	SS		Manhattan, Kansas
Breitstadt, Emma Matilda	LAS	96	Quincy
Breitstadt, Hulda Charlotte	HSLAS (SS)	93	Quincy
Bremer, Abraham Meyer	Com		DePue
Breneman, Amos Lloyd	Agr	97	Emporia, Kansas
Brennan, Charles Gage	SS		Ava
Brennan, Wintress, A.B., 1914	Lb		Ogden
Brentlinger, Clell McArthur	EE	107	Urbana
Brew, George Joseph	Com	21	Chicago
Brewhaker, Harvey Edgar	Agr	11	Bardolph
Brewster, Harold Spencer	Agr	34	Clayton
Breyfogle, Ruth Edith	LAS		Crown Point, Indiana
Bridgan, Erna	SS	6	Chicago
Briggs, Benjamin Herbert	Com	11	Minier
Briggs, Byron Gould	LAS		North Adams, Massachusetts
Briggs, Evelyn Louise	LAS		Champaign
Briggs, Flora Bernice	HSAgr	67	Champaign
Briggs, Ray Herbert	LAS	31	Clinton, Indiana
Brigham, Erwin Risley	Com	38	Glencoe
Brinkerhoff, George Norman	LAS	21	Springfield
Brinkerhoff, Roelof Reynolds	SS		Utica, Ohio
Brinkerhoff, Verne William	LAS	141	Rock Island
Brinton, Helen	Agr	16	Dixon
Bristow, George Washington	LAS	94	Metropolis
Britt, Charles Allen	Agr	68	Penfield
Britt, Raymond Lewis	LAS	53	Freeport
Britt, Thomas Madison	Agr	26½	Wheeler, Texas
Brittin, William Allan, Jr.	Agr	63	Virdin
Broadwell, Agnes Marie	HSLAS	34	Fairbury
Brock, Thomas Hugh	LAS		Waynesburg, Pennsylvania
Brockmeier, Angelina Louise	HSLAS	67	Freeport
Brockmeier, Martha Matilda	HSLAS		Freeport
Brodfuehrer, Fred Michael	Agr		Chicago
Brolin, Marion Theodora	LAS		Rockford
Bromm, Alvin Carl	Agr	37	Evansville, Indiana
Bronson, George Durvill	SS	72½	Urbana
Bronson, Paul Jones	Med		Terre Haute, Indiana
Bronson, Roger Beckwith	Com	97	Champaign
Brook, Frederik Vail	Agr	30	Ardmore, Pennsylvania
Brooks, Charles Campbell	Agr	36½	Illino, Missouri
Brooks, Ethel Isabel	HSLAS	98	Beicher City
Brooks, Eula Margaret	HSLAS	21	Urbana
Brooks, Frederick Augustus	EE	71½	Urbana
Brooks, Joseph Chaney	Agr		Forreston
Brooks, Raymond Harrison	Agr	98	Marion
Brooks, Roger	Com	35	Urbana

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Brooks, Viola	LAS	61	Urbana
Brookshier, Atwill	LAS	Mocon	
Brotherton, William Edgar	ME	59	Guthrie
Brown, Albert Paul	A	42	Urbana
Brown, Albert Willard	LAS	103	Giffin, Ohio
Brown, Alice, B.Ped.			
(Michigan State Normal) 1892	Lb		Ypsilanti, Michigan
Brown, Allen Brookins	LAS	66	Phoenix, Arizona
Brown, Bayard	Agr	66	Genoa
Brown, Bruce Keith	Ch		Wilmette
Brown, Carter Pennell	Agr	60	Normal
Brown, Clair William	Agr	91	Greensburg, Indiana
Brown, Clarence Raymond	Com		Indianapolis, Indiana
Brown, Dayton Reginald Eugene	A	18	Chicago
Brown, Dorothy Sargent	HSLAS	65	Genesee
Brown, Earl	LAS		St. Anne
Brown, Earl Radford	Agr		Grenada, Mississippi
Brown, Edward Tilden	ME		Batavia
Brown, Elmer Ellsworth	Agr		Noblesville, Indiana
Brown, Frank Albert	Med		Chicago
Brown, Frank Spangler	Agr	40	Elwood
Brown, Grace Voris	LAS		Findlay
Brown, Harlow Wood	Agr	62	Findlay
Brown, Helen Dorsey	Agr	105	Chicago
Brown, Irwin Tucker	Com	50	Chicago
Brown, John Lawrence	ChE	67	Tiskilwa
Brown, John Lyman	RCE	55	Anderson, Indiana
Brown, Julius	L (SS)	57	Chicago
Brown, Kenneth George	SS		Urbana
Brown, Lelah Craig	HSLAS	51	Hillsboro
Brown, Lisbeth	Com		Batavia
Brown, Lloyd Warfield	CE	95	Decatur
Brown, Paul Maurice	CE		Nokomis
Brown, Ralph Powers	Com	100	Chicago
Brown, Robert Rea	AE (SS)	103	Urbana
Brown, Tom	Agr	80	Winnetka
Brown, Walter William	Com		Quincy
Browne, William Harcourt	HSagr	32	Chicago
Brownfield, Georgia	Com	62	Urbana
Brownfield, Lelab, A.B., 1910	CerE	70	Benton
Browning, Thomas Samuel	SS	15	Benton
Brownlee, Kate St. Clair	Agr	103	Monmouth
Bruington, Earl Vivian	SS		Philadelphia, Pennsylvania
Brumbaugh, Rolland Edward	SS		Philadelphia, Pennsylvania
Brumbaugh, Roy Talmadge	LAS		Eldorado
Bruner, Georgia Faye,	LAS		Rock Island
Bruner, Philip Rexford	EE		Hartsburg
Bruns, Clansy Leslie	Agr	32	Chicago
Bruns, Herman Edward	Agr	67	Pontiac
Brunskill, Eylar William	ME		Champaign
Brutus, Carl Russell	Agr	47	Tolono
Brya, Edward Gunning	HSLAS		Kewanee
Bryan, Mabel Ruth	Ch		Clinton
Bryant, Lyle	Agr	28	Princeton
Bryant, Louis Ralph	Mus sp		Springfield, Massachusetts
Bryant, Mrs. Martin S.	Com	36	LaGrange
Bryant, Robert Alfred	LAS		Chicago
Buchanan, Ethel Harriet	Agr (SS)	74	Joplin, Missouri
Buchanan, George V	LAS	51	Oklahoma, Oklahoma
Buchanan, Richard Bell	A	24	Montello, Wisconsin
Buchen, Helen Louise	LAS (SS)	26	Chicago
Buck, Harold Philrich	SS		Metcalf
Buckler, Bruce Joseph	Mus (SS)	2	Metcalf
Buckler, Carl William, A.B., 1915	A		Champaign
Buckler, Helen Irene	SS		Davenport, Iowa
Buckley, Harry William	SS		Lamont
Buckley, Timothy John	CerE	102	Newark, New York
Buckner, Orello Simmons	Agr		Chicago
Buehler, Albert Carl	LAS	51	Highland Park
Buell, Charles Clinton	A	112	Highland Park
Buell, Temple Hoyne	AE (SS)	110	Quincy
Buerkin, Julius Allan	CerE	102	Chicago
Buhai, Abraham Samuel	LAS		Nashville
Buhrlman, Elaine Louise	EE	34	Elgin
Bull, Willard Edwin	Agr	1	Elkhart, Indiana
Bullock, Otis LeRoy	ChE	55	Litchfield
Bumann, Albert Theodore	L		Ellery
Bunting, Loyd Daniel	LAS		Sterling
Burcb, Evelyn Ruth	EE	37	Decatur
Burg, Harold Edgar	Agr (SS)	73	Elgin
Burger, Albert Harold	Agr	30	Canton
Burgess, Malcolm Herbert	LAS	33	Fairfield
Burgess, Oscar William	Com	34	Newman
Burgett, Charles Culbertson	EE	107	E. St. Louis
Burgoon, David Warner	Agr	63	Moline
Burgston, Clyde Harold	Com	40	Milwaukee, Wisconsin
Burke, Edmund			

Burke, William Fogarty	Agr	25½	Lincoln
Burkhart, Paul Henry	EE	110	Henry
Burleigh, Inez Lillian	LAS		Mazon
Burns, Clifford Clare	Agr	102	East Dubuque, Iowa
Burns, Owen McIntosh	L		Danville
Burns, Valerie Irene	HSLAS		St. Louis, Missouri
Burns, Wayne Emerson	Com		Mansfield
Burns, Wiibur Maurice	Com		Grand Rapids, Michigan
Burnside, Karl Ackerman	AE	31	Orleans, Iowa
Burrell, Beulah	HSLAS	62	Effingham
Burrell, Thomas Henry	AE	111	Albion
Burton, Clifford Ketchum	LAS	34	Oak Park
Burton, Malcolm Vreeland	ChE		Gary, Indiana
Burton, Richard Coler	Agr		Richmond
Burton, Robert Alson, Jr.	LAS	54½	Chicago
Burres, Opal, A.M., 1909	SS		Urbana
Burwash, Grace Sarah	LAS	16	Champaign
Burwash, Louis Stephen	Agr	65	Champaign
Burwash, Lucie Pauline	HSLAS		Champaign
Burwash, Mary Gladys, A.B., 1913	Lb	33	Champaign
Burwash, Ralph Samuel	ME	108½	Champaign
Burwash, Ruth Margaret	HSLAS		Champaign
Bussey, Garrett Helen	HSagr	114	Urbana
Bussey, Josephine Kathryn	LAS	82	Urbana
Bush, Alexander	Ch (SS)	33½	Glencoe
Bush, Esther Virginia	LAS		Seymour, Indiana
Bush, Kenneth Burman	CE	117	Quincy
Bushman, William Henry Harrison	ChE		Edwardsville
Buskirk, Donald Vernon	SS	6	Westerville
Bussard, Samuel Earl	Agr		Palestine
Bussey, Charlotte Elizabeth, A.B. ( <i>Yankton Coll.</i> ) 1914	Lb		Tabor, South Dakota
Butler, Allen Gilman	EE	35	Peoria
Butler, Gordon Emmett	Com		Crathersville, Indiana
Butler, Jennie Rebecca	HSLAS		Lebanon, Indiana
Butler, Malvin Linwood	Com		Downers Grove
Butler, Mary	SS	82½	Cairo
Butler, Walter Carter	Agr	33	Chicago
Butterfield, Francis Eugene	EE	72	Urbana
Butterfield, Janet Marie	HSLAS		Belvidere
Butterfield, Ruth Blatt	HSLAS		Urbana
Butzer, Goldia Grayce	LAS	15	Urbana
Buzzard, Guy Ashton	SS	16	Mason City
Byers, Paul Weaver	Agr		Dixon
Cable, Merwyn Harden	Com		Mercdes, Texas
Cade, Albert Frederick	LAS	64½	Belle Fourche, South Dakota
Cadisch, Gordon Francis	Agr	70	Cleveland, Ohio
Cadle, Chester Junius	Com	93	Charleston
Cady, Laurence Charles	ME	31	Kewanee
Caldwell, George Harold	Agr		Fargo, North Dakota
Caldwell, Kenneth Ryder	EE	48	Decatur
Caldwell, Mary Lathrop	LAS	33	Champaign
Caldwell, Ruth Marie	LAS	66	Milford
Caldwell, Walter Randolph	LAS	31½	Fairfield
Calhoun, Preston Browne	Agr (SS)	62½	Glencoe
Calkin, Charlie Janes	ME	36	Crescent City
Calloway, Milton Lewis	SS	1	Hot Springs, Arkansas
Calvin, Ben Willis	LAS		Washington, D. C.
Camden, William Richard	SS		Creal Springs
Cameron, Charles Conrad	Com	4	Wilmette
Cameron, George Martin	Agr	36	Carpentersville
Campbell, Charles Warren	MnE	73	Coal City
Campbell, Chester Morgan	Ch	32	Elgin
Campbell, David Joseph	Agr (SS)	126	Urbana
Campbell, Douglass Sudmore	Com		Cleveland, Ohio
Campbell, Duncan McEvoy	CE	94½	Chicago
Campbell, Ella Seaver, A.B. ( <i>Morningside Coll.</i> ) 1913	Lb		Champaign
Campbell, Ethelred Erasmus	ChE (SS)	34½	St. Elizabeth, Jamaica
Campbell, Florence Maud	LAS	99	Tolono
Campbell, Florence Merle	HSLAS	47	Delta, Colorado
Campbell, Francis Marion	SS	27	Ursa
Campbell, George Albert	Lsp		Lead, South Dakota
Campbell, Grace Alberta, A.B. ( <i>Missouri Wesleyan Coll.</i> ) 1912	Lb		Grant City, Missouri
Campbell, James Franklin	SS		Milwaukee, Wisconsin
Campbell, Jeanne Adeline	HSagr		Pecatonica
Campbell, Marshall	Com	29	Chicago
Campbell, Marvin Margaret	LAS	30½	Daniphau, Missouri
Campbell, Mason Herbert	Agr	64½	Elgin
Campbell, William Franklin	Agr	65	Urbana
Canaday, Miles Edwards	Agr	54	Chicago
Cannon, Lester Cloyd	Agr		Tower Hill
Cannon, Tyrone Murphy	ME	73½	Rapatee
Canon, Charles Coulson	Agr	72	San Angelo, Texas
Cape, Ruth Charlotte	SS	7	Eldorado
Carbaugh, Philip Ward	LAS	33	Rockford
Cargill, Frederick Chauncy	Agr	60	Mason City

## University of Illinois

Carkhuff, LeRoy Franklin	ME		Morris
Carley, Paul Sterling	Med (SS)	52½	Buckley
Carlsen, Ralph Armond	Com		Chicago
Carlson, Alice Mae	LAS		Oak Park
Carlson, Ansgar Lilius	Agr	65	Batavia
Carlson, Carrie Esther	LAS	104	Chicago
Carlson, Harry Leonard	Agr	70	LaSalle
Carlson, Lee Russel	Com	107	Champaign
Carlson, Richard John	A		Chicago
Carlton, George Alexander	ME		Chicago
Carman, Charles MacArthur	HSLAS	33	Oglesby
Carmen, Florence Mattie	Agr		Goodwine
Carnes, John Kenneth	Agr (SS)	8	Urbana
Carney, Sidney Silvester	AE	37	Steward
Carr, Kenneth Wright	Com	65	Oak Park
Carr, Vernon Wesley	Agr		Denison, Iowa
Carr, William Henry	CE	39	Bowling Green, Missouri
Carrier, Earle Wesley	SS	4½	Chicago
Carricker, John Homer	Agr	30	Irving
Carrithers, Henry Havens	LAS		Hudson
Carroll, Alfred Bailey	Com		Chicago
Carroll, Charles	REE	100	Shawneetown
Carroll, Franklin Otis	A	90	Jerseyville
Carroll, James Bernard	L	57	Bradford
Carson, Marcus Chesney	LAS		Nashville
Carson, Natalia Margareta	Agr	24	Chicago
Carter, Floyd	SS		Clinton
Carter, Maud Russell	ME		Pierre, South Dakota
Carter, Wilbur Maxwell	A		Indianapolis, Indiana
Carter, William Stokely	Med	60	Trenton
Cartwright, Nellie G.	SS	7½	Pennsville, Indiana
Cary, Malcolm Combs	ME	33	Oak Park
Casey, Dawn Reber	HSLAS	23	St. Louis, Missouri
Cash, Mabia Alice	SS	16	Greenup
Caskey, Arthur David	EE		Chicago Heights
Cassella, William Nathan	ME		East Alton
Cassidy, Grattan George	A		Champaign
Castello, Ray Robert	Agr		Chicago
Castendyck, Charles Hamel	Com		LaSalle
Castle, Drew William	ME	72	Gridley
Castle, Richard Lloyd	Com	44	Urbana
Castle, Russell D V	Com (SS)	99	Urbana
Castro, Julio Melchor	Agr	54½	Cardenas, Cuba
Cather, LeRoy Heywood	AE		Lincoln
Cable, Helen Frances	LAS		Champaign
Cavanaugh, Marie Elizabeth	LAS		Urbana
Cavette, Francis Erle	Com (SS)	69½	Lacon
Cavins, William Ferguson	Agr sp		Mattoon
Cavitt, John William	LAS		Woodland
Cawthorne, Dorothy Isabel	LAS		Chicago
Caylor, John McShane	LAS		Noblesville, Indiana
Cecil, Lawrence Keith	Ch (SS)	30½	Champaign
Cermak, Joseph Julius	ME	24	Chicago
Cessna, Robert	Agr	26½	Danville
Chabot, Bernice	HS Agr	20½	Kankakee
Chabot, Kathleen Martin	HSLAS	65	Kankakee
Chadderdon, Alvin Wayne	Agr		Adair
Chaiken, Edith	LAS	73	Chicago
Chalcraft, Delos Maurice	Agr	34	Albion
Chalcraft, Lloyd Walton	Agr	78	Albion
Chamberlain, Ralph Gerald	SS	8	Milwaukee, Wisconsin
Chamberlain, Richard Harris	Com	30	Peru, Indiana
Chambers, Roy Ellsworth	LAS	23	Chenoa
Champlin, Grace Elizabeth	HS Agr	96	Chicago
Chan, Shiu Chien	Com		Canton, China
Chan, Ye Young	LAS (SS)	28	Shin Nig City, China
Chandler, Edward Charles	LAS	15½	Flora
Chandler, Ruth	SS		Chicago
Chaney, Zoe Gladys	SS	87½	Champaign
Chang, Hung Lieh	LAS	3	Honan, China
Chang, Ju Shen	Com	44	Chekiang, China
Chang, Mabel Rachel	SS		Chicago
Chang, Tien Tsai	Agr	113	Canton, China
Chang, Tze Li	RCE (SS)	79	Hunan, China
Chapin, Minor	MnE		Twin Lakes, Colorado
Chapman, Donald Vandenburg	Agr		Evanston
Chapman, Harry	SS	4½	Westville
Chapman, Harry Albert	Agr		Raymond
Chapman, Harry Henderson	ME		Hinsdale
Chapman, Thomas White	LAS		Belvidere
Chappelear, Claude Simpson	Agr	1	Greenville
Charlton, John R	SS		Belvidere
Charpier, Leonard Louis	LAS	3	Chicago
Chartrand, John Baptist	EE	133	East St. Louis
Chase, Joseph Harold	Agr		Toulon
Chatten, Carney Edward	SS	127½	Flora
Checkett, Mable Irene	LAS		Chicago

*Undergraduate Students*

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Chen, Jung-ting	<i>Agr</i>	33	Canton, China
Chen, Lan-sung	<i>Com</i>	123½	Peking, China
Chen, Queh King	<i>LAS</i>	92	Hunan, China
Cheng, Fo Hung	<i>Com</i>		Shanghai, China
Chenoweth, Homer, A.B., 1913	<i>SS</i>		Champaign
Chenoweth, Leland Frank	<i>Med</i>		Mason City
Cherry, Oscar Allen	<i>Ch (SS)</i>	21½	Pawnee
Chester, Jamie Margaret	<i>HSLAS</i>		Champaign
Chew, Dorothy	<i>HSLAS</i>	120	Pueblo, Colorado
Childs, James Bennett	<i>LAS (SS)</i>	40	Shohonier
Chiles, Edna	<i>Mus</i>		Carlinville
Chiles, Howard Marion	<i>ChE</i>	82½	Champaign
Chioco, Juan Ortiz	<i>Agr</i>		Sto. Domingo, P. I.
Chisum, Oscar Clifton	<i>LAS</i>		Little Rock, Arkansas
Chittenden, Robert Mearle	<i>CerE</i>	66	Brookfield, Missouri
Chmelik, Frank, Jr.	<i>Agr</i>		Chicago
Choisser, Ferne	<i>LAS</i>	32	Benton
Choisser, William Carl	<i>L</i>	26	Benton
Choy, Bung Chen	<i>CE (SS)</i>	26	Honolulu, H. I.
Christ, George Phillip	<i>ChE</i>	39	Quincy
Christen, Lester Howard	<i>AE</i>	50	Elgin
Christensen, Paul Galen	<i>AE</i>		Menominee, Michigan
Christopher, Arthur Bailey	<i>CerE</i>	65	Canton
Christophersen, Stanley Marimus	<i>EE</i>	62	Rockford
Christy, Glen, B.Mus., 1915	<i>SS</i>		Harrisburg
Christy, Grace Jean	<i>HSLAS</i>	35	Urbana
Christy, Otto	<i>Agr</i>	65½	Riley, Indiana
Chubbuck, Judson Elson	<i>Com</i>	68	Gibson City
Church, Leroy	<i>EE</i>	67	West Chicago
Churchill, Fred Weaver	<i>Agr</i>	23	Fairbury
Churchill, Woodford	<i>Agr</i>		Fairbury
Churton, Florence Helen	<i>HSagr</i>	74	Plainfield, New Jersey
Chvatal, Ray James	<i>CerE</i>	33	Chicago
Cierpik, Casimir Stanley	<i>ME</i>	37	Chicago
Cieslik, Edmund	<i>CE</i>	120	Chicago
Cilley, Lillie, A.B. ( <i>Grinnell Coll.</i> ) 1914	<i>Lb</i>		Independence, Iowa
Cinnamon, Floyd Franklin	<i>EE</i>	30	Crete
Citizen, Carl Christopher	<i>L</i>		Danville
Claney, Edwin John	<i>Agr</i>		Chicago
Clapp, Harland Tyler	<i>Agr</i>	17	Mentor, Ohio
Claraian, Charles Henry	<i>CE</i>	38	Oak Park
Clarida, Troy Wayne	<i>Agr</i>	67	Marion
Clark, Albert LeRoy	<i>Agr</i>	33	Chicago
Clark, Alice Broaddus, B.L., A.B., 1891, 1911	<i>SS</i>		Urbana
Clark, Bayard Hand	<i>LAS</i>	123½	DeKalb
Clark, Charles M	<i>RME</i>	75	West Chicago
Clark, Frank Roundy	<i>ChE</i>		Wheaton
Clark, George	<i>Agr</i>	97	Carthage
Clark, George Leroy	<i>Com</i>		Bement
Clark, Harold Edward	<i>CerE</i>	103	Sterling
Clark, Harold Lyman	<i>A</i>		Minneapolis, Minnesota
Clark, Harrison Blaine	<i>Com</i>		Brooklyn, New York
Clark, Harry Cecil	<i>EE</i>		Champaign
Clark, James Glen	<i>Com</i>	37	Moweaqua
Clark, Hattie	<i>SS</i>		Carmi
Clark, James Holbert	<i>SS</i>	48	Mattoon
Clark, James Russell	<i>A</i>	114	Urbana
Clark, John Donaldson	<i>Med</i>		Chicago
Clark, Margaret	<i>Agr</i>	29	Peoria
Clark, Marshall Grant	<i>Agr</i>	33	Carthage
Clark, Mary Chase	<i>Med</i>		Peoria
Clark, Meribah Eliza	<i>LAS</i>	116	Mt. Sterling
Clark, Reid William	<i>Agr</i>	46½	Attica, Indiana
Clark, Thomas Edward	<i>ME</i>		Indianapolis, Indiana
Clark, Van Ness	<i>Com</i>	31	Dansville, New York
Clarke, George Edward	<i>Med</i>	72	Noblesville, Indiana
Clarke, Helen Beulah, A.B., 1915	<i>Mus</i>		Urbana
Clarkson, Albert Jay	<i>REE</i>	130	Champaign
Clausen, Clara Alice	<i>LAS</i>	99	Secor
Clauson, Henry Webster	<i>Med</i>		Williamsport, Indiana
Clayberg, Dorothea Marion	<i>A</i>	118	Oak Park
Clears, Harry Loomis	<i>Com</i>		Kewanee
Clegg, Carl	<i>ME</i>	37	Chandlerville
Clem, Leona	<i>LAS</i>	32	Casey
Clem, Orlie Martin	<i>LAS</i>	34	Benton
Clements, Esther	<i>Com</i>	59	Champaign
Clements, Olen Robert, A.B., 1914	<i>L</i>	78	West Union
Clements, Philip Louis	<i>Agr</i>		Stonington
Clevé, Albert	<i>CE</i>	55	Chicago
Cleveland, Arthur Mortland	<i>LAS</i>		Plymouth, Indiana
Cleveland, Warren Eddy	<i>ME</i>	39	Rockford
Clevenger, Zora Goodwin	<i>SS</i>	6½	Muncie, Indiana
Clifford, Woodbridge Kenneth	<i>Agr</i>		Orion
Cline, Albert Ross	<i>Agr</i>		Rock Island
Cline, Gerald Morris	<i>Med</i>	32	LeRoy
Cline, Marguerite Arabelle	<i>HSLAS</i>		Swain, Arkansas

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Clinebell, Howard John	Agr	103	Glasford
Clorfine, Irwin Bernard	LAS		Chicago
Close, Arthur Buckley	Agr	33	Chicago
Cloyd, Louis Samuel	Com	25	St. Louis, Missouri
Coats, Mildred Nona	HSAgr		Coats Grove, Michigan
Cobb, Frieda	LAS		Falls Church, Virginia
Cobb, Thomas H	SS	6½	New Burnside
Cobb, William Henry	Com		Tipton, Iowa
Cochran, Russell William	LAS	60	Champaign
Coffey, Clara F.	SS		Urbana
Coffey, Mary Etta	SS		Lenoir, North Carolina
Coffey, Walter Castella, B.S., M.S., 1906, 1909			
Cohen, Carl	SS		Urbana
Cohen, Isadore Maurice	Med	26	Atlanta
Cohen, Isadore Perry	AE	60	Chicago
Cohen, Julius	CerE		Chicago
Cohn, Lewis Allen	LAS	66	St. Louis, Missouri
Coile, Sam Henry	Com	13	Chicago
Colbert, James R	A	74½	Cookerville
Colby, Paul Whiting	SS		Urbana
Cole, Elwood Bourland	A	62	Sioux City, Iowa
Coleman, Henry Clay Jr	ME		Peoria
Coley, Glenn	ME	88	Greenville
Colgrove, Vivian Geraldine, A.B. (Univ. of Minnesota) 1908	ChE	100	Beardstown
Collier, Ethel Alice	Lb		Minneapolis, Minnesota
Collins, Campbell Stephen	LAS	65	Union Grove, Wisconsin
Collins, Charles O	Agr	27	Peoria
Collins, Fred Adair	CE		Arthur
Collins, Guy	Agr		Evanston
Collins, Helen Beatrice	SS	8	Garrett
Collins, Ina May	HSLAS	41	Benton Harbor, Michigan
Collins, Irvin Bliss	LAS		Hillsboro
Collins, Julian Hampton	LAS (SS)	50½	Potomac
Collins, Lathan Hunter	Com		Chicago
Collins, William	CE		LaMoille
Coldney, Duane Campbell	LAS		Negaunee, Michigan
Colson, Robert John	ME	36	Chicago
Colton, Edwin Thome	LAS	33	St. Charles
Colton, Henry Richardson	MSE	71	Kansas City, Missouri
Colton, Russell Smith	ChE		Hinsdale
Colvin, Esther Marie	MSE	111	Kansas City, Missouri
Comer, Helen Louise	SS		Urbana
Compton, Donald Elliott	SS		Charleston
Comstock, Chauncey Darling	AE	36	Tomah, Wisconsin
Comstock, Keyon Phinister	Agr		Chicago
Conant, Lewis Jasper	Agr		Chicago
Conard, Iva Louise	LAS (SS)	23½	Kinmundy
Conard, Ruth	LAS	30	Monticello
Conboy, Mabelle Inez	Mus		Monticello
Condon, Edith Frances	SS		Jacksonville
Condrey, Ralph Smith	HSLAS		Sheffield
Conefrey, Hal Wynan	SS		Lebanon
Conger, Almon Mortimer	LAS	84	Le Roy
Congleton, Frank Harold	ME	35	Elgin
Conklin, Dorsey Tyler	Agr	33	Urbana
Conklin, Helen Naomi	SS	23	Rockton
Conklin, Paul Stanley	HSLAS	15	Roscoe
Connell, David Evans	SS	115	Roscoe
Connor, John Hal	CE	39	Chicago
Conrad, Alma Bertha	LAS	34	Newton
Conrad, Roy Monroe	SS		Altamont
Conrad, Charles Smedley	ME		Darlington, Indiana
Consoer, George Otto	CE	78	Sycamore
Cook, Dorothy Elizabeth, A.B. (Denver Univ.) 1914	Lb		Oak Park
Cook, Eugene	CE	82	Denver, Colorado
Cook, John Manchester	Com	33	Odin
Cook, Leeson Hay, Ph.B. (Univ. of Chicago) 1913	Com		Chicago
Cook, Morris Henry	Lb		Warrensburg, Missouri
Cook, Stephen Wallace	EE		Greenup
Cooke, Robert Howell	Com		Evansville, Indiana
Cooke, Russell Stewart	CE		Blairstown, New Jersey
Cookson, Linn Palmer	CE		Chicago
Cooley, Roy Claiborne	CE	34	Carlinville
Coolidge, Joseph Lexington	Agr	68	Clinton
Coolidge, Richard Newell	Com		Cleveland, Ohio
Coolidge, Robert Blake	CE	110	Lead, South Dakota
Coolidge, William Francis	Agr	33	East Cleveland, Ohio
Cooling, Kenneth George	Agr	29	Bloomington
Cools, Gabriel Victor	AE	36	Rockford
Cooney, Lucile Elizabeth	LAS	65	Ancon, Panama
Cooper, Charles Edward	Mus		Pekin
Cooper, David William	Agr	101	Carlisle, Indiana
Cooper, Edward Alden	EE	103	Astoria
Cooper, Harry Perkins	SS		LaGrange
	AE	60	Fayette, Iowa

Cooper, Henry Noble, Jr.	Agr	38	LaGrange
Cooper, Leon Morton	ChE	72	Chicago
Cope, Lorin Vaughan	Agr	64	Tonti
Copenhaver, Robert George	Agr	69	Polo
Corbett, Charles Harold	Com		Arthur
Corbin, Ruth Ione	LAS	12	Sullivan
Corcoran, Katherine Mary	SS	8	Galena
Cordell, Della Grace	Mus	76	Macomb
Cordell, Ralph Vail	SS	22	Yates City
Cordell, Vail	SS	130 $\frac{1}{2}$	Macomb
Corke, Harold Winfred	Com	71	Evanston
Corkins, Lorette Ora Edna	SS		St. Anne
Cormack, Joseph Clarence	Com		Glencoe
Cornelisen, Ralph White	RCE		Pittsburg, Kansas
Cornell, Donald Sidney	ME	74	Western Springs
Corper, Philip	Com	44	Chicago
Corrie, Lester Linn	Agr	26	St. Francisville
Corrie, Wendell Bliss	Agr	33	St. Francisville
Corson, Irene Marguerite	LAS		Genoa
Corzine, Bruce Herbert	LAS (SS)	116	Charleston
Corzine, Dale Clair	Agr	65	Assumption
Cost, James Nicks	ME	39	River Forest
da Costa, Manuel Ferreira	EE	105	Coritiba, Brazil
Cotta, Homer Willis	Agr	33	Rockford
Cotttingham, Paul V.	EE	35	Dancille
Coudy, Georgia D.	LAS		Granite City
Coultas, Charles Rufus	Agr	60	Virden
Coultas, David Eugene	Agr		Virden
Coulter, Isaac Harry	Agr	14	Alton
Countryman, Irving Byron	Com	64	Dixon
Courtney, George Frederick	LAS	27 $\frac{1}{2}$	Urbana
Courtney, Helen Irene	LAS		Urbana
Courtright, Raymond Orland	SS	6 $\frac{1}{2}$	Tonkawa, Oklahoma
Couto, Lincio da Silva	EE (SS)	72	Rio de Janeiro, Brazil
Covey, Edwin Linn	LAS	71	Peoria
Cowell, Roland Aldemar	Com (SS)	30	Lawrence, Kansas
Cowell, William Harold	SS	9	Lawrence, Kansas
Cowgill, Clinton Harriman	A	126	Topeka, Kansas
Cowles, Rollin Janes	Com		Burlington, Iowa
Cox, Claude Gaylord	Agr	65 $\frac{1}{2}$	Macomb
Cox, Clinton Exum	Agr		Rockville, Indiana
Cox, Gerald Judy	ChE		Bridgeport
Cox, Henry Ray	Agr	66	St. Louis, Missouri
Cox, LaFayette	Agr		Farmer City
Crabtree, John Bradley	Com		Chicago
Crackel, Anna Belle	SS		Urbana
Craft, John Countryman	Agr	32 $\frac{1}{2}$	Rochelle
Craig, Florence Margaret, A.B., (Univ. of Minnesota) 1914	Lb		Minneapolis, Minnesota
Craig, John Andrews	EE		Hindsboro
Craig, Noel Edwin	SS	6 $\frac{1}{2}$	Kewanee
Craigmile, Mary Agnes	LAS	72	Rantoul
Craigmile, Mary Delight	LAS	41	Knox, Indiana
Craigmile, Robert James	EE	74	Knox, Indiana
Crain, Hersey Nicholas	EE	60	Waverly
Cramer, Della Lillian	SS		Mt. Carroll
Crandall, Bert Harrison	Agr	53 $\frac{1}{2}$	Huntsville
Crane, Charles Sutherland	Com		Chicago
Crane, Dudley Winthrop	Agr	100	Montclair, New Jersey
Crane, Helen Merrill	SS		Urbana
Cranston, Donald Julius	LAS		Danville
Crary, Mac Ernold	SS		Macomb
Crate, Ethel Frances	LAS		Bellflower
Cratty, Stella Emma	LAS		Galesburg
Cravens, Thomas Carl	Agr	97	Bloomfield, Indiana
Crawford, Aubrey Bryan	LAS		Milford
Crawford, James Louis	CerE	64	Macomb
Crawford, Louis Noire	A	91	West Lafayette, Indiana
Crawford, Ruth Marguerite	HSLAS	62	Urbana
Crawford, Wayne Humiston	LAS		Pontiac
Crawford, Woodruff Lynden	Med (SS)	63	Pontiac
Crebs, John Powell	Agr	101	Carmi
Creighton, David Edward	Agr	22	Phoenix, Arizona
Creighton, Mary Elizabeth	LAS	93 $\frac{1}{2}$	Phoenix, Arizona
Cremeans, Nida Edith	LAS		Urbana
Cress, Eldred Everett	AE	34	Carlinville
Criley, Harlan Russel!	LAS	36	Champaign
Crim, Charles Harold	CE		Esterhause, Iowa
Croak, John Elmer	LAS	26 $\frac{1}{2}$	Decatur
Crofts, Carson	Com	64	LaGrange
Croll, Hilda Marian	HSLAS	100	Beardstown
Cronin, Marie Louise	LAS		Chicago
Crooks, Harold Fordyce	LAS	138 $\frac{1}{2}$	Chicago
Crosby, Henry Fay	Agr	92 $\frac{1}{2}$	Detroit, Michigan
Crosiar, Arthur Organ	Agr	36	Utica
Cross, George Arthur	Agr	99 $\frac{1}{2}$	Polo
Cross, Hugh Ware	LAS		Jerseyville

Cross, Mary Ann	LAS	31	Roachdale, Indiana
Cross, Oakie Edith	LAS		Roachdale, Indiana
Crothers, Eli Kirk, Jr.	A		Bloomington
Crouse, Florence Hawley, A.B. (Tulane Univ.) 1910			
Crow, Robert Neil	Lb		Citronelle, Alabama
Crowder, Dan Moore	ChE		Carrollton
Crutchfield, William	Com		Sullivan, Indiana
Cryder, John Henry	A	131	Chattanooga, Tennessee
Cryder, Mary Edna	Agr	67	Plainfield
Cullinane, George	LAS	64	Plainfield
Culp, John Dewitt	EE	71	St. Louis, Missouri
Cumfer, Donald Alonzo	CE	12	LaGrange
Cummings, Robert E.	ME		Chicago
Cummins, Wayne Hamilton	SS	63	Houston, Texas
Cunningham, Opal Claree	SS	63	LaPorte City, Iowa
Cunningham, Sterling Ross	LAS (SS)	59	Urbana
Cunningham, Walter James	L	28	Bismarck
Curl, Charley Edmund	ME		Mattoon
Currie, Althea Elizabeth	ME	108	Paris
Currie, Nannie	Com		Paxton
Currier, Lawrence Jenks	SS	117	Loda
Curtis, Burton Tuttle	Com		Aurora
Curtis, Jane Tuttle	Agr	923	Decatur
Curtis, Miriam Austin	HSLAS		Decatur
Curtis, Percy Nelson	HSLAS	30	St. Louis, Missouri
Curtis, Smith	Com		Edmore, Michigan
Curtis, William	EE	35	Albion
Curtis, William Wheaton	Med	31	Chicago
Curtiss, George	Agr		Chicago
Curtiss, Ralph Edwin	Agr (SS)	102	Stockton
Cushman, Kenneth Bruce	Agr	663	Marengo
Cuskaden, Major	Agr		Yonkers, New York
Cuthbert, Dorothy Lucile	LAS	463	Arcola
Cuthbertson, William Stuart	Com	114	Gilsum, New Hampshire
Cutler, Lloyd Elwell	Agr	61	Pueblo, Colorado
Cutter, Robert Marshall	Com		Rosemond
DaCosta, Harold Fonseon	Med		St. Louis, Missouri
Dadant, Harriette Gabriel	HSLAS	23	Chicago
Dahlberg, Truman	ChE	66	Hamilton
Dahlin, Edna	27		Chicago
Dailey, Arthur Aloysius	HSAgr	31	Geneva
Dale, John Herman	ME	22	New York City
Dallenbach, Mayhelle May	Agr	63	Mt. Vernon
Daly, Ewing Porter	HSLAS	62	Champaign
Daly, Geraldine	ME	70	Ottawa
Daly, Helen	LAS	39	Joliet
Dame, Ralph Uhler	LAS	77	Monmouth
Dammers, John William	Com		Oxford, Indiana
Daniel, Ruth	LAS	119	Chicago
Dappert, Anselmo	Mus		Kewanna, Indiana
Darby, Harry Jr.	CE	39	Taylorville
Darmstatter, Helen Olive	ME	713	Kansas City, Kansas
Darrell, George Charles	HSAgr	29	New Athens
Daugherty, Alberta Maud	AE	73	Chicago
Daugherty, George Henry	Mus		Champaign
Davenport, Dorothy Darlean	LAS		LaGrange
Davenport, Maria Jennings	Med		Wheaton
Davidson, Allen Mayer	SS		Salem
Davidson, Blaine Thomas	A	21	South Bend, Indiana
Davidson, Gaylord Stillman	L	13	Urbana
Davidson, Lola Margaret	Com (SS)	36	Springfield
Davies, Robert Coleman	HSLAS	723	Crawfordsville, Indiana
Davis, Charles Brewer	Com		LaGrange
Davis, Clara Elizabeth	LAS		Champaign
Davis, Earl Thomas	Mus	101	Urbana
Davis, Elmer Leon	Agr	73	Chicago
Davis, Frances Margaret	Com	31	Kankakee
Davis, Frederick Abram	LAS		Urbana
Davis, George Robert	Agr	69	Cherry Valley
Davis, Grace Ethel	EE	61	Mt. Sterling
Davis, Helen	SS	73	St. Joseph
Davis, Helen Powers	SS	77	Los Angeles, California
Davis, Ida Belle, A.B., 1911	HSLAS	97	Holton, Kansas
Davis, John Eugene	SS		Champaign
Davis, Katherine, B.L. (Knox Coll.) 1892	Com	483	Chicago
Davis, Kenneth Isaac	Lb		Galesburg
Davis, Leonard Hoadley	Com		Tampico
Davis, Leonard Louis	Agr	633	Huron, South Dakota
Davis, Lyman Kent	CE	79	Freeport
Davis, Martha Laurafred	LAS		Donnellson
Davis, Milton Russell	LAS	933	Carbondale
Davis, Nelson Louis	Agr	61	LaGrange
Davis, Palmer	AE		Chicago
Davis, Philip Frank	Agr		Fairmount
Davis, Roberta Lee	Agr	63	Windsor Mills, Quebec
	SS	143	Carrollton

## Undergraduate Students

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Davis, Raymond Ellis	CerE	64	Danville
Davis, Waldo Emerson	EE		Rapatee
Davis, Ward Owen	Agr	32½	Ramsey, Indiana
Davis, Zachary Stephen	A	23	Chicago
Davison, Edward Harrison	Agr		Bloomington
Davison, Joe Miller	Agr		Marshall
Davison, Lester Smith	Agr		Minonk
Davison, Victor Harvey	LAS		Minonk
Dawley, Earle Reed	CE		Passaic, New Jersey
Dawley, Robert Worthington	ChE		Passaic, New Jersey
Dawson, Louis Edward	ChE	48	Springfield
Dawson, Owen LaFayette	Agr	16½	Orland
Day, Curtiss LaQ	Com	66	Gibson City
Day, Dorothy	LAS	31	Chicago
Day, Harry Warren	Agr	69	Shelbyville
Day, Helen Boise	HSLAS		Harvey
Day, Raymond Moore	LAS		Maywood
Day, Richard Cyrus	Agr		Hampshire
Day, Vincent Stephen	ME	80	Springfield
Day, Walter Thomas	L	65	Springfield
Dayton, Marshall	Com		LaMoille
Dayton, Wayland Wilbur	Agr		West Chicago
Deahl, Neulon	Ch	33	Champaign
Dean, Olive Gertrude	LAS	47	Harrisburg
Dean, Vaughn Waldow	Com	30	Decatur
Deaver, Lister Alward	CerE	161	Bloomington
Decker, Arthur Eli	SS	11	Augusta
Decker, Edna Mae	HSAgr	64	Chicago
Deering, Richard Francis	CE		Chicago Heights
DeGroot, Horace Edward	ME		Chicago
DeGroot, Walter Charles	Agr		Chicago
DeHart, Myra Lois	HSLAS		Waukegan
DeLong, Willard Earl	Com	74	Foosland
DeLue, Jim Simon	LAS		Chicago
Dempsey, John Patrick	CE	31	Buffalo, New York
Dempster, Charles	SS	70	Memel, Germany
Deneveth, Amelia Elizabeth	Mus		Mt. Clemens, Michigan
Denison, Irving Alson	Agr	33	Washington, D. C.
Dennis, Rose Carolyn	HSLAS	50	Glencoe
Dent, Richard Wilmer	MnE (SS)	27	Urbana
Denz, Raymond Edward	LAS	104	Decatur
DeRamus, Joseph Sherrard	LAS		Peoria
Derby, Harold Leslie	CE	99½	Kirksville, Missouri
Derby, Sylvester Randall	SS	142½	Elkhart, Indiana
Denchler, Gustave Herman	AE	37	Aurora
Deveneau, George Adams, Ph.B. <i>(Univ. of Chicago)</i> 1912	Lb		Sheridan
Devlin, John Lester	Com (SS)	61½	Chicago
Devlin, Julien Walter	Com		Chicago
DeVoe, Ray Threadgold	ME		Freeport
Devol, Everett Rolland	EE		Cocoa, Florida
Dewey, Elmer Clarence	Com	66	Rockford
DeWolfe, Lucy Leonora	LAS	96	Assumption
Dexter, Grace Ella, A.B., 1911	SS		Urbana
Dibelka, James Charles	Med (SS)	26	Chicago
Dibel, Harry Charles	Com	90½	Wolcott, Indiana
Dickerson, Guy Leon	SS	5	Clinton
Dickson, Gerald Edgar	LAS	37	Hampshire
Dickson, Lawrence Evans	LAS		Chicago
Dieserud, Helge Christopher	ME	39	Washington, D. C.
Dietmeier, Clarence Richard	Com	97½	Winslow
Dietmeier, Homer Ray	Med (SS)	38	Winslow
Dietrich, Erma Lorena	Com		Bremen, Indiana
Dietrich, Harry Ben	Com		Mason City
Dietz, John Wamer	Com	34	Belleville
Diggins, Gordon Stuart	LAS		Harvard
Dikis, Alfred Ira	Agr	47	Waverly
Dillavou, Charles Elmer	Com		Champaign
Dillavou, Essel Ray, A.B. 1915	L	31	Champaign
Diller, Harold Francis	Med	32	Rantoul
Dippell, Ralph Ellsworth	AE	73	Freeport
Ditewig, George Bocock	Com		Peoria
Dittman, Chester Alada	Com		Lawrenceville
Dix, Ruth Mabel	HSLAS	54	St. Louis, Missouri
Dixon, Ralph Scott	ChE		Vincennes, Indiana
Doak, Cranston Homer	Agr	21	Stronghurst
Dobson, Frank Mills	SS		Richmond, Virginia
Dodd, Donald Chambers	Com	21	Champaign
Dodd, Thomas Leo	SS		Eldorado
Dodds, Josephine	LAS	59	Champaign
Dodds, Lois Ellen	LAS	95	Champaign
Dodge, Astrid von Moth	LAS		Champaign
Doe, Weastell Taylor	LAS	60	Kens, Ohio
Doepel, Robert Francis	MnE		Mattoon
Doerr, Clarence Leo	Agr	23	Chicago
Doerscher, Willis Harry	Com	31½	Chicago
Doherty, Chester Cochran	LAS		Clay City

Doherty, Everett Haisley	SS	157½	Fairmount, Indiana
Doherty, Mrs. Grace	SS	2	Carthage, Indiana
Doherty, Margaret Isabelle, B.Mus. 1915	LAS	137	Urbana
Dolan, James Leo	Agr	68	Champaign
Dolan, Joseph Cuthbert	SS	8	Chicago
Dole, Ethel Mary, B.S., 1915	SS		Champaign
Dole, Laura Emily	Mus	66	Champaign
Dollahan, Everett Mahlon	EE		Dixon
Dolley, Paul Turnley	SS	7	Lebanon
Domus, Justin Aloysius, A.B., 1915	SS		Shelbyville
Donahue, William Dale	Com	32	South Bend, Indiana
Donaldson, Harold James	Agr	86	Polo
Donaldson, John Riley	CE	110	Joliet
Donaly, Marie Ruby	Med		Carterville
Dong, Tsch	LAS	31	Yunnanfu, China
Donn, Merrill Carr	LAS	63	Chicago
Donnell, Allan Douglas	EE	109	Mattoon
Donovan, Leo Francis	Med	26	Jacksonville
Donovan, Mary Margaret	Com		Champaign
Dooey, Helen Laura	LAS		Pittsfield
Doolen, Clem Daniel	EE	35	Centralia
Doolen, Glen Wesley	Med	32	Centralia
Doremus, Walter Louis, Jr.	Agr	56	Montclair, New Jersey
Dorris, Sylvanus Alpheus	SS	28	Urbana
Dorsett, Martha Matilda	HSLAS		Augusta
Dorsett, Mary Elva	HSagr	102	Augusta
Dory, Victor Paul	Com		Warsaw
Dosher, Guy Hudson	CE	44	Harrisburg
Doss, Paul Christian	Agr		Philo
Doty, Dorothy Lanning	HSLAS (SS)	44	Wilmette
Doty, Helene Elcanore	LAS (SS)	44	Wilmette
Dougherty, Robert Hughes	ChE	28	Peoria
Douglas, Jonathan Park	Agr		Bloomington
Dowell, Carl Philip	Agr	70½	Port Richmond, New York
Downey, Durbin Ralph	Agr	83	Sheffield
Downs, Myron Day	Agr		River Forest
Downs, Walter Elections	Com		Pana
Doyle, Frank Butler	ME		Raymond
Doyle, Grace Margaret	LAS	70	Mitchell, South Dakota
Doyle, Irene May	LAS		Clinton
Doyle, John Francis	Com (SS)	100	Champaign
Doyle, William James	Com	35	Champaign
Drake, Charles Arthur	LAS (SS)	35	Denver, Colorado
Drake, Jacob Raleigh	L		Lovington
Draile, Henry Edward	EE	106	Coatsburg
Draper, Arthur William	LAS	65	Chicago
Draper, Lawrence Francis	Med	75	Clinton
Drew, Herbert Joseph	SS	5	Dixon
Drew, Hollis Prescott	Com		Dixon
Drew, Mrs. Pearl Edith	SS		Dixon
Drew, Mildred Evangeline	LAS	102	Evanston
Drobisch, Mollie Moore	LAS		Decatur
Droste, Louis Anthony	Com	103	Grand Rapids, Michigan
Drummet, Arthur William	Agr		Long Point
Drummond, Alfred Alexander	Agr		Horning, Oklahoma
Du, Chuin	LAS		Honan, China
DuBoff, Abe	RCE		Peoria
DuBois, Addie Majella	LAS		Eldorado
DuBois, Marie Mildred	HSLAS	28	Eldorado
DuBois, Martha Harriet	SS	76½	Eldorado
DuBridge, Walter Stephen	EE		Momence
Duff, Durward Belmont	LAS	3	Chicago
Duffy, John Clarence	Agr	81	Ottawa
DuFrain, Frank James	LAS (SS)	121	Momence
Dugger, Donald Ollie	AE		Princeton, Kentucky
Duke, Harrison Reed	Med	55	Chicago
Dumas, Velma Burdette	Mus	18	Cicero
Dumke, Mildred	Com (SS)	35	Elmhurst
Dunavan, Frank Leroy	CE	119	Ottawa
Duncan, Lottie	SS	7	Martinsville
Duncan, Russell Eugene	Com	30	Penfield
Dungan, George Harlan	Agr	65	Richwood, Ohio
Dunlap, Effie Charlotte	Com	117	Urbana
Dunlap, Francis Ellsworth	A	112½	Maywood
Dunlop, Leonard Eugene	A	61½	Urbana
Dunn, Georgiana Evelyn	HSLAS	24	Chicago
Dunn, George Leslie	Agr		Chicago
Dunn, Homer Alban	Com		Columbus, Indiana
Dunn, Theodore Saunders	SS		Waukegan
Dunn, Ulys Stephen	EE	72	Dorrisville
Dunn, Walter William	CerE		Cleveland, Ohio
Dupre, Valentine Harry	EE	68½	Chicago
Durfey, Donald	Com	65	Tolono
Dushek, Vincent John	EE	72	Chicago
Dusthimer, William Vernon	LAS		Chrisman
Dustin, Charles Sanderson	Agr		Champaign
Dutton, Herbert Buell	ME	75	Oak Park

Dutton, William David	LAS	Pittsfield
DuVall, Nellie Olive	Mus	Urbana
Duval, Virgil Henry	L	25
Duzenbury, Grant P	Med	Aledo
Dvorak, Joseph	A	Fairbury
Dwyer, Ellen Frances	LAS (SS)	37
Dwyer, Katharine Josephine	SS	Chicago
Dyblic, Hiram Victor	Com	Charleston
Dyer, Ethel Golden	SS	Joliet
Dyer, Harold Ruskin	Agr	White Hall
Eade, Ben Cooper	A	Bloomington
Easley, Burdelle	LAS	Elizabeth
Early, Dwight Holdridge	Agr	Urbana
Earnest, William Franklin	Agr	Chicago
East, Bess	LAS	Homer
Eastman, Herbert Clinton	SS	Anderson, Indiana
Eastman, Mrs. Mary Sears	SS	Cambridge
Easum, Chester Verne, A.B. (Knox Coll.) 1914	SS	Amboy
Eaton, Charles Miller	Agr	Clayton
Eaton, Rea Lincoln	LAS	Quincy
Eaton, Rex Carr	Agr	Eaton, Colorado
Eaton, William John	Agr	Eaton, Colorado
Eckardt, Roland Oscar	SS	Gilman, Wisconsin
Edes, Ethel Frances	AE	Sheboygan, Wisconsin
Edds, Vera Oriene	SS	LaGrange
Edgerley, Kenneth Hopkins	LAS	Normal
Edie, Burl Albert	Agr	Granville
Edwards, Clarence Leon	LAS	Monticello
Edwards, Dorothy	SS	Carrollton
Edwards, Gail Phillips	Agr	Tallula
Edwards, Harlan Hammond	Ch	Chicago
Edwards, Howard Milton	CerE	Chicago
Edwards, M Reece	Med	Lee
Edwardson, Vera Kern	SS	Urbana
Egan, Lillian Elizabeth	LAS	Chicago
Ehlers, Earl Edward	HS Agr	Quincy
Eichberg, Adrian J	AE	Mason City, Iowa
Eichhorn, William Hirschel	LAS	Chicago
Einbecker, William Francis	Agr	Mound City
Ekstrand, Henry Emanuel	ChE	Chicago
Eldridge, Earl Whitney	A	Waukegan
Eldridge, Lillian Mary	HSLAS	Greenview
Elerding, Beatrice Irene	LAS	Chicago
Eleson, Eugene Robert	Med	Elkhart, Indiana
Ellington, Alvin Matthews	LAS	Buffalo
Elliott, Arthur Roland	Agr (SS)	Streator
Elliott, Dana Milton	Com	Mattoon
Elliott, Emilio Edgar	Agr	Bono, Arkansas
Elliott, Eva Lillian	LAS	Beresford, South Dakota
Elliott, Isabel Gertrude	LAS	Beresford, South Dakota
Elliott, Robert Tollington	RCE	Wilmington
Ellis, Harvey	Com	Evanston
Ellsworth, Mark Wesley	CE	Libertyville
Elwell, Dan William	Com	Champaign
Emch, Walter	CE	Urbana
Emery, Harold Robert	LAS	Bellerville
Emmond, Wyatt Goen	Com	LaGrange
Engelhardt, Lora May	HSLAS	Harvard
Enelow, Helen	SS	Chicago
Engeland, Edmund Franciscus	EE	Grant Park
England, Glenn Lewis	EE	Havana
England, Leland Stanford	Agr	Decatur
Engle, Lawrence Washington	Agr	Urbana
Engle, Mrs. Ralph Nelson	SS	Urbana
Engle, Ralph Nelson	Agr	Urbana
Engle, Robert Henry	Agr (SS)	Freeport
English, Frank James	ME	Springfield
Eninger, Helen Marie	SS	Arthur
Eppinger, Esther Auguste	HSLAS	Quincy
Eppinger, John George	Com (SS)	Quincy
Eppinger, Marie Anna	HSLAS	Quincy
Epstein, Karl	Agr	Bloomington
Erdmann, Roy Alfred	Agr	Gencsco
Ericksen, Adrian Edson	Com	Onawa, Iowa
Erickson, Arthur	Agr	Chicago
Erickson, Edward Bringle	CE	Chicago
Erickson, Edwin Halmar	LAS	Chicago
Ernest, Delta	SS	Carlyle
Ernest, Helen Orpha	Mus	Urbana
Ernest, Ruth, A.B., 1915	SS	Urbana
Ernst, Carl Paul	CE	Chicago
Ernst, Elmore George	A (SS)	Visalia, California
Ernst, Leslie	Agr	Peoria
Erwin, Elizabeth	SS	Urbana
Erwin, Leslie Douglas	SS	Medora
Espy, Murray Greenleaf	LAS	Logansport, Indiana

## University of Illinois

Ettinger, Charles McKinley	CE	74	Bourbon, Indiana
Euston, Jacob Howard	EE	36	Norfolk, Virginia
Evans, Bessie Louise	SS	4	Champaign
Evans, Donald Grover	EE	74	Champaign
Evans, Floyd Evan	ME	75	Hinckley
Evans, Franklin Batchelder	LAS		Chicago
Evans, Mrs. Frederick Nobel	Mus		Stockton, California
Evans, Lecye Ward	Mus sp		Winchester
Evans, Hatibel	SS		Virden
Evans, Lois Kathryn	LAS		Monticello
Evans, Maurice Willard	Com		Mattoon
Evans, Melbourne Covell	SS	6½	Decatur
Evans, Ruth	SS	6	Champaign
Evans, Vera Kate	SS	34	Champaign
Evans, Wallis Johnson	Ch	56	Kenilworth
Eveland, Ted	EE		Hobson, Montana
Everham, William Edward	ME	83	Chicago
Everhart, Gladys	HSLAS		Champaign
Eversole, Harold Baker	LAS		Hindsboro
Ewald, Paul George	Agr	28½	Mt. Carmel
Ewer, Warren Badger	AE	81	Chicago
Ewert, Earl Cranston	LAS	71½	Danville
Ewing, Fred C.	SS		Camden, Michigan
Excell, Stuart William	CE	75	Chicago
Eymann, Margaret	LAS	53	Oak Park
Fackler, Orpheus A.	SS		Ashton
Fager, Eugene Philip	LAS (SS)	93	Murphysboro
Fager, George Edward Kirchner	Agr	33	Murphysboro
Fabrnkofp, Charles Frank	SS		Decatur
Fairbairn, William Bryan	CE		Joliet
Fairbanks, Berthier Wesley	Agr	83	Chicago
Fairchild, Evelyn VanZandt	LAS	28	Silver Creek, New York
Faircloth, Samuel Edwards	ME		Aurora
Fairfield, Agnes Evelyn	HSLAS		Harvey
Fairfield, Faith Jeannette	LAS		Rutland, Vermont
Fairman, Charles	LAS	34	Alton
Faletti, Michael Joseph	L	28	Standard
Falkenberg, George Vigo	Agr		Chicago
Fallis, Clara Louise	SS		Danville
Fallon, Vallie Edna	LAS		Urbana
Fang, Sze Voo	SS		Ynunan, China
Farah, Salim Raji	Agr	97	Nazareth, Palestine
Farmer, Elma Leola	Agr	92	Belleview
Farnam, Bertha Lucille	LAS	53½	Pawnee
Farnham, Albert Ayrton	Agr	108	Westheld, Massachusetts
Farrow, John Frank	SS		Alamo, Tennessee
Fasig, Otho Samuel	LAS		Martinsville
Fasold, Alice Margaret	Med	61	Sunbury, Pennsylvania
Fasold, Miriam Rebecca	LAS	101	St. Louis, Missouri
Faulk, Merrill Clifford	LAS	67	Urbana
Fay, Donald Allen	Com	67	Urbana
Federmann, Charles Russell	A	119	Brookfield, Indiana
Fedde, Ruth Catherine	SS		Peotone
Fee, Bess	HSAgr sp		Clarksburg, Indiana
Fee, Mary Jeannette	HSAgr		Champaign
Feldman, Joseph Elmer	Agr	114½	Morrison
Feldman, Nathan	ME	15	Chicago
Felger, Walter Blaine	LAS	113½	Urbana
Felmley, John Benjamin	AE	43	Normal
Felton, Harold Norton	EE	72	Mendota
Ferguson, Florence Roxana	HSLAS	100	Anawan
Ferguson, Frank Cleveland	LAS	102	Anawan
Ferguson, George Alonzo	A	72	Washington, D. C.
Ferguson, Howard Ritchey	LAS (SS)	65	Champaign
Ferguson, Kate Dorothy	Lb (SS)	33	Weymouth, England
Ferguson, Wilbert Homer	Com		Kansas City, Missouri
Ferree, George Bennett	LAS		Urbana
Ferrell, Cyrus Porter	EE (SS)	110½	El Paso
Ferriss, Edwin Abell	Com		Elgin
Fetherston, James Edward	SS		Champaign
Feuer, Bertram	ChE (SS)	45½	Chicago
Fickett, Edward Maynard	Agr	36	Chicago
Field, David Edwards	A	29	Slater, Missouri
Field, Howard, Jr.	ME	37	Wilmette
Fiero, Elmer Ellsworth, A.B., 1914	L	33	New York
Finfield, Clarence Eugene	Com	102	Buda
Filbey, Edward Joseph, Ph.D. (Univ. of Wisconsin) 1908	Com		Urbana
File, Alvin Harry	SS		Chicago
File, Viola Louise	HSAgr	53	Irving
Finch, Garrett Hobart	Com		Hooperston
Finlay, Eva Leah	LAS		Burlington, Iowa
Finley, Margaret Alice	LAS	33	Hooperston
Finley, Marion Reece	Agr	70	Hooperston
Fillinger, Oral	SS		Saginaw, Michigan
Finn, Edmund Matthew	AE	76	Lawrence, Massachusetts
Finnegan, James Henry	Agr	122	Brimfield

Finnigan, Martha Mary	LAS	25	Champaign
Firebaugh, Raymond Sims	Agr		Robinson
Firebaugh, Richard David	LAS	69	Robinson
Firoved, Glenn William	Agr		Monmouth
Firth, Jacob Gerald	ME		Green Valley
Fischbacha, Antonia	LAS		Centralia
Fischer, Austin Harold Reed	A		Chicago
Fischer, Mary Louise	HSagr	32	Bensenville
Fischer, Ralph	Agr	62 $\frac{1}{2}$	Freeport
Fischer, Walter Rathfon	Med (SS)	93 $\frac{1}{2}$	Chicago
Fish, Vivian Mary	SS		Benton
Fisher, Aileen Steele	HSLAS		Geneseo
Fisher, Clarence	Agr	38	LaGrange
Fisher, Clarence John	LAS	33	Chicago
Fisher, Erwin, Jr	Com	104	Chicago
Fisher, Eva Josephine	LAS	93	
Fisher, Frederick Harrington	Com	35	South Bend, Indiana
Fisher, Harold	Agr		Bement
Fisher, Harry Eastman	MSE (SS)	89 $\frac{1}{2}$	Chicago
Fisher, Helen Vastine	LAS	103	Geneseo
Fisher, Ivan Louis	Com		Logansport, Indiana
Fisher, Lawrence Glen	LAS	8 $\frac{1}{2}$	Orangerville
Fishman, Alvin Texas	Agr	117 $\frac{1}{2}$	Bosky Dell
Fishman, Wilbur Harlow	Agr	27	Bosky Dell
Fisk, Fritz Harris	L	11	DeKalb
Fitch, Howard J	Agr	67	Rockford
Fitch, Hugh	ME		Greenup
Fites, Harold Bratt	Agr	70	South Bend, Indiana
Fitzer, Marian Lucille	LAS		Belvidere
FitzGerald, Mrs. Leora Almita	LAS	115	Champaign
Fitzgerrell, Jack Allen	Agr	107	Ewing
Fitzgerrell, Sylvester Stanton	LAS (SS)	73	Benton
Fitzpatrick, James Claude	MnE	76	Gillespie
Fitzpatrick, Margaret Marion	LAS		Chicago
Flagg, Verna Mary	LAS		Peoria
Flannery, Charles Abusdal	ME	77	Chicago
Flatt, Harrison Abidiah	SS		Carrollton
Flatt, Nelle Irene	LAS		Champaign
Flaughier, Richard Greer	Agr (SS)	117 $\frac{1}{2}$	Cayuga, Indiana
Fleck, Arthur William	A	51	Indianapolis, Indiana
Fleishman, George Samuel	CE		Granite City
Fleming, Denna Frank	LAS	40 $\frac{1}{2}$	Paris
Fleming, Harry Hall	Agr		Chicago
Fleming, Sara Adelaide	SS		Danville
Fleming, Stephen James	Agr		Chicago
Flemming, John Herman	A	75	Davenport, Iowa
Fletcher, Edwin Lott	Agr		Morris
Flettemeyer, Frederick Rudolph	AE	112 $\frac{1}{2}$	Morris
Flexer, Edna Helen	HSLAS	51	Joliet
Flock, Marguerite Pauline	LAS (SS)	34	Urbana
Flock, Ward John	Agr (SS)	64	Urbana
Flood, Grace	LAS	58	Terre Haute, Indiana
Flood, Martin	EE	32	Cortland
Flowerree, Trennace, B.S., 1913	SS		Champaign
Flowers, Violette Vinnetta	LAS		Bonduville
Fluke, Autha Maybelle	LAS	29	Chicago
Flynn, Con C., A.B. ( <i>Knox Coll.</i> )			
1910; A.M. 1911	L		Galesburg
Fock, Ernesto Augusto	CE	107	Buenos Aires, Argentina
Fogler, Mayer Farthing	Ch	31 $\frac{1}{2}$	Champaign
Foley, James Stuart	EE		Onarga
Foley, Philip Oglesby	Com		Paris
Folkers, Herbert Peter	LAS		Frankfort
Fontaine, Everett Orren, A.B., 1915	Mus	130	Momence
Foot, Lorenzo Stephen	Agr	17	Stronghurst
Foran, Cassie Agnes	Agr sp		Joliet
Forkay, Mildred Lillian	HSagr	101	Prophetstown
Forsythe, Albert Ernest	ChE (SS)	31 $\frac{1}{2}$	Port Antonio, Jamaica
Forty, Dominic	ME		Chicago
Foster, Frank Ward	SS		Alexis
Foster, Frederick Heath	Com		Chicago
Foster, George Henry	ChE	68	Lenox Dale, Massachusetts
Foster, John Wellington	Agr		Spring Grove
Foster, Ralph Nave	ME	34	Attica, Indiana
Foulke, Claude Clifton	Com	98	Worthington, Indiana
Foulke, Ronald Edward	EE	36	Aurora
Fox, James Leslie	CE	83	Englewood, New Jersey
Fox, Jessie Lucilla	HSagr (SS)	62	Urbana
Fox, Patrick Francis	LAS		Indianapolis, Indiana
Fox, Ruth Leda	LAS	68	Upper Montclair, New Jersey
Foy, Torrey Byers	Agr		Freeport
Fradkin, Benjamin	MnE	36	Chicago
Frailey, Lester	SS		Urbana
Frame, Byron	SS		Eldorado
Frame, Edith Maye	LAS		Champaign
Frame, Grace Bryan	LAS (SS)	34 $\frac{1}{2}$	Champaign

Francis, Arthur Lewis	Com	29	Chicago
Francis, Helen Elizabeth	LAS	96	Wyoming
Frankenberger, Edna	LAS	29½	Carthage, Missouri
Frankenfeld, Walter	SS		Pana
Franks, Arthur John	ChE		Springfield
Fraser, Cecil Eaton	SS		Champaign
Fraser, Reginald Simon	CE	62	Lead, South Dakota
Fraser, Thomas	MnE	75	White Hall
Frazee, Anna Dora	LAS	118	Moewequa
Frazier, Cleo	SS		Paris
Frazier, John	Agr		Paris
Freark, Parke West	MSE	109	Champaign
Freark, Ray Henry	Med	22½	Champaign
Frede, Glenn William	Com		Stewardson
Frederick, Eugene Mark	Agr	65	Clarence
Frederickson, Harry Grindley	Agr		Champaign
Freeburg, Walter Sven	EE	40	Lindsborg, Kansas
Freeburn, Louise Caroline	LAS		Chicago, Alaska
Freels, John William	L	25	East St. Louis
Freeman, Kilburn Bartlett	CE	56	Champaign
Freer, Arthur Warren	CE	77	Chicago
French, Randall White Burns	Agr	53	Michigan, Michigan
Frensdorff, Charles August	LAS		Urbana
Freund, Gustav Louis	ChE	52	New York City
Frey, Hollis Oldfield	ME	61½	Bloomington
Frick, Arthur Henry	EE	33	Champaign
Fried, Harry Nathan	Agr	68	Chicago
Frier, John	ME	105½	St. Louis, Missouri
Friesenecker, Emma Katharine	SS		Galena
Frison, Theodore Henry	LAS	31	Champaign
Frobish, Bert Edward	SS		Onarga
Froehlich, Hugo Ferdinand	EE	91½	St. Louis, Missouri
Froehly, Arthur Gustav	EE		St. Louis, Missouri
Frohardt, Elmer Philip	Agr	50	Granite City
Frommann, Mildred	LAS		Chicago
Frost, Walter Kilborn	Com	27	Rockford
Frykholm, Ellen Viola	SS		Chicago
Fuchs, Arthur Wolfram	Med		Chicago
Fulke, Frank Leonard	Com		Evansville, Indiana
Fuller, Orville Melvin	Agr	55½	Beardstown
Fullerton, Theron Bushnell	SS		Champaign
Fulrath, William Merle	CE		Mt. Carroll
Fulton, Edward Irving	SS		Anchorage, Kentucky
Fulton, Guy Chandler	A	128	Warsaw
Fulton, Robert Elliott, Jr.	Com		Dixon
Fulton, William Jewett	LAS		Keokuk, Iowa
Fung, Yu Nan	Agr (SS)	46½	Hunan, China
Funk, Marguerite Marie	LAS	32	Danville
Funk, Ruth Scovell	HSagr (SS)	61½	Urbana
Furey, Warren William	EE		Chicago
Gaarder, Rolf Harold Josef	Com		Kristiania, Norway
Gabel, Helen Louise	HSLAS	66	Bekidere
Gabriel, Carson King	Med	64	Payson
Gabriel, Frances Amelia	LAS		Evansville, Wisconsin
Gaddis, Jessie Maria	HSagr	112	Champaign
Gaddis, Lillian Eunis	LAS		Alton
Gadsby, James Herbert	Agr		North Adams, Massachusetts
Gage, John Howard	LAS	98½	Texico
Gaines, Mary Glendora	HSLAS	32	Broadlands
Gale, Minnie	SS		Lincoln
Gallagher, Fred Barron	MSE (SS)	34	Rockford
Gallaher, Harold	EE	96	Tiskilwa
Gallimore, D. G.	SS		Cambridg
Gallivan, Lyle Hugo	AE	33	Champaign
Gannaway, Lula	SS		Gays
Gansbergen, Frederick	Agr		Chicago
Gantert, Cylno Foote	ChE		Quincy
Gants, Elwyn Tracy	ME	108	Wenona
Gantz, Grace Dorothy	LAS		Champaign
Gantz, Howard Stanley	Agr	64	Champaign
Garber, Alfred Emanuel	Agr (SS)	78	Gibson City
Gardner, Franc John	ChE	53	Chicago
Gardner, McKinley	LAS	37	Auburn
Garman, Horace Bryan	LAS		Urbana
Garman, John Walter	Agr sp		Decatur
Garman, Ray L.	Agr		Bethany
Garner, James Madison	Agr		Lanark
Garrett, Donald Benjamin	LAS		Rockford
Garrett, Texie	SS		Dickson, West Virginia
Garrison, Edith Grace	Mus	21	Urbana
Garth, Casper Tyrrell	Com	61	Beaumont, Texas
Gartner, Andrew Wolfgang	Com		St. Charles
Garvey, Edward James	AE	45	Faribault, Minnesota
Garvin, Wiley Boyce	Agr		Pittsfield

Gary, Jesse Lehman	CE	38	Carmi
de la Garza, Roman	CE	66	Cabinas Hidalgo, Mexico
Gates, Silas Harvey	Agr		Watseka
Gauger, Joseph Frederick	Agr	100	Champaign
Gauger, Raymond Wallace	LAS	85	Champaign
Gaunt, Gail	LAS	36	Mound City
Gaut, Rosa-Lee, A.B., 1914	LAS		Champaign
Gay, Ernest Hubbard	Agr (SS)	75	Quincy
Gayle, Gilmore Jacob	Agr		Port Limon, Costa Rica
Gayle, Maurice Rowe, Jr.	CE		St. Louis, Missouri
Gayle, Robert Edwin	Agr (SS)	103½	Lincoln
Gaylord, Francis Moses	Com		South Hadley, Massachusetts
Gehant, Evelyn Ella	HS Agr (SS)	102	Dixon
Gehant, George Modeste	Agr (SS)	69½	Dixon
Gehant, Rosalie Florence	HS Agr (SS)	91	Dixon
Gehlbach, Oscar Herman	LAS	34	Lincoln
Gehrig, Oscar Twiner	Com		Pekin
Geib, George Albert	CE	122	St. Paul, Minnesota
Geiger, Lester Charles	Com	35	Mendota
Geiger, Walter Jacob	EE		Mt. Carmel
Geiler, Frank Herman	LAS	49	Mansfield
Geisendorfer, Karl Edward	Agr (SS)	62½	Urbana
Gelbard, Oscar Cisig	Agr		Champaign
Gellert, Donald Nichol	ME		Chicago
George, Harold Edgar	Agr	125	Whittier, California
George, Leslie Godfrey	L	31	Staunton
Gerke, Roscoe	ChE		Greenville
Gerlach, Alma	HSLAS	33	Danishan, Missouri
Gerling, Richard William Herman	CE	34	Bloomington
Gernand, Oliver Perry	Agr	66	Rossville
Gernand, Paul	Agr	25	Urbana
Gernon, Gerald Deland	LAS		Kankakee
Gerten, Nicholas	CE	88	Chicago
Geselbracht, Howard Cyril	Agr	68	Chicago
Gethmann, Milton	CerE	29	Reinbeck, Iowa
Getrys, Ruth Hortense	LAS	70	Chicago
Gewalt, Carl Henry	A	32	Breckenridge, Minnesota
Geyer, Grace Mildred	LAS	99	Roswell, New Mexico
Geyer, Helen Florence	LAS sp		Quincy
Ghasnian, Valiram	EE		Constantinople, Turkey
Gherganoff, Penco	CE	34	Lovetch, Bulgaria
Ghislain, Lloyd Havens	Com	30	Oak Park
Gibbons, Maud Alberta	LAS	64	Metropolis
Gibbs, Frederick Richardson	Com		Oak Park
Giblin, Mary Angela	SS		Springfield
Gibson Harry Wilson	Com	42	Muskogee, Oklahoma
Gibson, Oscar Harry	LAS	96	Alexis
Gibson, Raleigh Augustus	Com	60	Decatur
Gibson, Sylvia Rose	LAS	67	Chicago
Gibson, Thomas Robert	Com	24	Chicago
Giddings, Mate Lewis	LAS	65	Donville
Gideon, Alva Jennings	LAS	33	Oklahoma City, Oklahoma
Gideon, Charles Russell	LAS	61	Oklahoma City, Oklahoma
Giertz, Arthur Edward	CE	70	Elgin
Gifford, Ralph Egley	Com	66	Onarga
Gift, Lyle Henry	Agr	69	Peoria
Gilbert, James Harman	L	56	Mt. Vernon
Gilbert, Minnie Ellen	LAS	102½	Dillon, Montana
Gildersleeve, Charles Turner	Agr		Hudson
Gildner, Lowell Ellsworth	Com	26	Atlanta City, New Jersey
Giles, Lewis Wentworth	AE	28	Washington, D. C.
Gilkey, Escho Vern	A		Indianola
Gilkey, John R.	SS		Hume
Gill, Clarence Scott	RCE	32	St. Louis, Missouri
Gill, Ivan C.	Agr	32	Albion
Gill, Smith William	Agr		East St. Louis
Gillette, William Henry	LAS		Lena
Gillham, Willard Clark	ME	67	Edwardsville
Gillison, James Herbert	LAS		Westville
Gilmore, William Edward	LAS	28	Chicago
Gilpatrick, Gladys	HS Agr	69	Plano
Ginnings, Paul Meade	ChE		Macomb
Ginter, Clarence Marshall	EE (SS)	28½	Peotone
Girhard, George M.	SS		Newton
Girhard, Harold Raymond	LAS	35	Newton
Gisb, Owen Ellyson	RME		Topeka, Kansas
Gladish, Willis Linsay	SS		Dundee
Glass, Ian	Agr		Park Ridge
Glass, Will	EE		Rock Island
Glassco, Hazel	SS		Urbana
Glassco, Ruth Marie	HS Agr (SS)	61	Urbana
Grazier, William Lacy	AE		Newport, Kentucky
Gleason, Raymond Michael	EE	38	Chicago
Glessing, Barbara	SS		El Paso
Glenn, Edward Wilson	SS		Holton, Kansas
Glick, Everett E.	Agr	112½	Urbana

Glover, Clarence Washburn	L	28	Ottawa
Glover, Donald Mitchell	Med	103	Urbana
Glover, Vernon Leslie	CE	39	Mattoon
Gluek, Arthur Louis	CE	39	Minneapolis, Minnesota
Goddard, James Douglas	Med	27	Marion
Godehn, Reuel Ariel	AE	111	Moline
Godfrey, Frank	Com	32	Staunton
Goebel, Irma Gretchen, A.B. 1915	Mus	133	Urbana
Goeltz, Walter Adolph	Agr	36	Ravina
Goeltz, William Henry	HSLAS	89½	Oak Park
Goettler, Edna Agatha	A	123	Chicago
Gogerty, Henry L.	LAS	69	Zearing, Iowa
Goldberg, Charlotte Deana	Med	Chicago	Chicago
Goldberg, Joseph	CE	63	Chicago
Goldberger, Henry Joseph	LAS	Greenvie	Greenvie
Golden, Marie	A	57½	St. Louis, Missouri
Goldman, Frank Lyle	HSLAS	64	Davenport, Iowa
Goldschmidt, Erna Claire	Agr	50	Wataga
Goldsmith, Frank French	RCE	98	Chicago
Goldstein, Robert Sidney	ME	60	Chicago
Golinkin, Abraham Lincoln	Agr	21½	Bellflower
Gooch, DeWitt Robert	LAS	99	Bellflower
Gooch, Gretchen Louise	HSLAS	49	New York City
Goode, Eslanda Cardozo	LAS	5	Loda
Goodell, Addison	SS	Beardstown	Beardstown
Goodell, Horace Holbrook	LAS	Belleville	Belleville
Gooding, Laura Lavonia	AE	37	LaSalle
Goodman, Albert Nelson	SS	Urbana	Urbana
Goodman, Byne Frances, M.S., 1913	CerE	62	Terre Haute, Indiana
Goodman, Edwin Rheinstrom	HSLAS	Champaign	Urbana
Goodmann, Beatrice Ida	LAS	Oberlin, Ohio	Urbana
Goodpasture, Gladys Marie	Ch	93	Urbana
Goodrich, Robert James	Agr	Chicago	Chicago
Goodspeed, Willetta Myrtle	Com	37½	Elmwood
Goodwillie, Douglas Monroe	MSE	75	Joliet
Goodwin, John Hanford	Agr	16	Ritchey
Gordon, Frank Allyn	EE	26½	Urbana
Gordon, Kenneth Hickok	CerE	6	Oquawka
Gordon, Louis	LAS	48	Chicago
Gordon, Marie Alma	LAS (SS)	37½	Urbana
Gore, Roy Cletis	Com	75	Chicago
Gorey, George Francis	LAS	10	Ritchey
Gorham, John William	Agr	75½	Urbana
Gormley, Vincent Lewis	SS	Chicago	Chicago
Gossard, Ella	Com	27½	Avalon, Pennsylvania
Gosser, Harold	Com	Lincoln	Lincoln
Gossett, Leo Everett	Com	Libertyville	Libertyville
Gotti, Harry Dominick	LAS	Springfield	Springfield
Gottschalk, Arthur Hubert	Agr	68	Fairfield
Goudy, Don Coleman	CE	77	Urbana
Gould, Anthony Ready	Com	Aurora	Aurora
Gould, Clifford Burt	CE	30	Sterling
Gould, Frank Elmcr	Com	69	New Sharon, Iowa
Gould, Maurice Augustus	CE	39	Evanston
Gould, Philip Newhall	LAS	39	South Holland
Gouwens, Estey William	Com	100	Jacksonville
Gouveia, Lawrence Theodore	EE	14	Hospet, India
Gowd, Rayadwig Nagan	EE	Metropolis	Urbana
Grabbe, John Christian	Agr	108	Cincinnati
Grabbe, Lowell Francis	EE	108	East Dubuque
Grace, Floyd Vivian	LAS sp	72	Hyde Park
Graff, Albert Ambrose Ignatius	EE	Los Angeles, California	Rockton
Graham, Elizabeth	SS	72	Morning Sun, Iowa
Graham, Florence	LAS	60	Elgin
Graham, Harland Brown	Agr	109	Urbana
Graham, Walter Thompson	SS	96	Rockford
Graham, Wilmer Trumbull	ChE	28	Menomonie, Wisconsin
Grant, Clarence Todd	EE	91	Silver Creek, New York
Grant, Ruth Margaret	HSLAS	64	Decatur
Grantz, Raymond Lorimer	L	37	Cisco
Graven, Anker Suerre	A	Mus sp	W. Palm Beach, Florida
Graves, Frank Wilkinson	Agr	14	Chicago
Graves, Nellie Ruth	Mus	34	Decatur
Graves, Paul	SS	Oakwood	Oakwood
Gray, Cora Emmeline, M.S. (Univ. of Chicago) 1909	Mus sp	72	Odell
Gray, Daniel De Witte	EE	29	Maroa
Gray, James Madison	Com	68	Arcola
Gray, Kline	EE	98	Chickasha, Oklahoma
Gray, Leslie Roy	EE	Des Moines, Iowa	Des Moines, Iowa
Gray, Otto Benton	Agr	68	Lovington
Gray, Ralph Edward	CerE		
Gray, Russell Callam	Agr		
Gray, Ruth	HSLAS (SS)		
Gray, William Jasper	LAS		

Grayhack, John Edward, Jr.	CE	110	Joliet
Green, Esther Cranston	HSLAS	31	Urbana
Green, Gladys	HSLAS	67	Oakwood
Greene, Bert Daniel	LAS	13½	Byron
Greene, George	SS		De Kalb
Greene, Joel Waring	Agr	33	Urbana
Greene, Scott Corwith	LAS		Wilmette
Greener, Walter Henry	LAS		Streator
Greenfield, Richard Fletcher, Jr.	ME	24	Chicago Heights
Greengard, Louis Jacob	Agr	113	Chicago
Greenhill, Harold	ME	74	Chicago
Greenwell, Earl Eugene	LAS	65	Harvey
Greer, Donald Malcome	LAS		Anderson, Indiana
Gregg, Marion Elsie	HSLAS	63	Chicago
Gregory, Allene, Ph.D. (Radcliffe Coll.) 1913	Mus sp		Urbana
Gregory, John Milton	Com	33	Kansas City, Missouri
Gregory, Julius Elmer	Com		Olney
Gregory, Richard Earle	ME	38	Moweaqua
Greison, Hans Peter	Com	92	Savanna
Grewé, Charles Henry	Agr	68½	Lawrence, Michigan
Grey, Newton Fox	Agr	93½	Evanston
Gridley, John Newton	Agr	78	Biggsville
Gridley, William Whiting	Com	105	Amboy
Gries, Albin George	AE		Chicago
Grieser, Leroy Oliver	Agr	100	Quincy
Grieser, Robert Wallor	Com		Quincy
Griffin, Glenn Frank	LAS	59	Traverse City
Griffith, Francis Dickerson	Agr	104	Chicago
Griffith, Kathryn	HSAgr		McNabb
Griffith, Stanwood John	Agr	33	Ashton
Griffith, Vernon Sumner	Agr	34	Clinton
Griffiths, Claude	SS		Roodhouse
Griffiths, David Wood	CE	37	Oak Park
Grigg, Jerome Bruner	MnE (SS)	15	Joplin, Missouri
Grigsby, Hugh	Agr	103	Medina, Mexico
Grigsby, Melborn Redmon	SS		Seneca
Grimes, Earl Jerome	Agr sp		Russellville, Indiana
Grimm, Boyd Allen	Com		Canton
Gripp, Elmore Albert	Com	37	Moline
Griswold, Jay Samuel	Agr		Camp Point
Grommon, Helen Wightman	HSLAS	23	Plainfield
Gronlund, Herbert Kenyon	AE	55	Elgin
Gronnerud, Herbert Melvin	CE		Chicago
Grosche, Alfred G.	Agr		Matteson
Gross, Charles Raymond	LAS (SS)	57	Chicago
Gross, Christian	Agr	65	Chicago
Grossberg, Victor Herbert	L	32	Chicago
Grossman, Donald Ashway	L	58	Champaign
Grossman, Ralph Emery	AE	100	Champaign
Grossman, William Abraham	Com	37	Pcoria
Grot, Ernest Christian	ME	48	Ottawa
Grotewant, Nina	HSLAS	27	Pekin
Grotts, Fred	SS		Raymond
Groves, Charles Harold	LAS		Champaign
Gruhl, Clarence James	AE	99	Milwaukee, Wisconsin
Grundman, Paul Albert	Com		Chicago
Gruner, Elmer John	EE	104	Speer
Gruner, Raymond William	EE	100	Speer
Grunewald, Carl Frederick	LAS	5	Chicago
Grunewald, Herman C.	CE	110½	St. Louis, Missouri
Gruny, George Robert	Agr	30	Camp Point
Gruver, Harold Dugdale	Agr		Chicago
Guernsey, Ernest William	ChE	25	Vincennes
Guild, Mrs. Lois	Agr	79	Urbana
Guilliams, Gordon Baudouine	Agr	21½	Evanston
Guimaraes, Aryde Sagadas	REE (SS)	78	Rio de Janeiro, Brazil
Gulley, Henry Alexander	CE		Urbana
Gulley, Sanford Joseph	ME	47½	Urbana
Gum, Harry Allen	ME	102	Marseilles
Gumm, Leslie Monroe	EE	107	Marseilles
Gundersen, Miles Campbell	Com		Chicago
Gunkel, Woodward William	Com		Sheffield
Gunning, Lillian Elizabeth	Com	98	Tolono
Gunning, Nadine Elsie	Mus sp		Wilmington
Gunther, Felix Arno	HSLAS		Quincy
Gurda, Francis Stanislaus Roman	REE	72	Milwaukee, Wisconsin
Gustafson, Carl Albert	A		West Fort Dodge, Iowa
Gustafson, George Philip	AE	73	Sycamore
Gustafson, Herman	Com	102	Ogema, Wisconsin
Guthrie, Helen Mae	ME		Mattoon
Guynn, Jesse Frederick	LAS		Dewey
Gwinn, Lawrence Duff	Agr	34	Terre Haute, Ind.
Haake, Harry George	ME		Chicago
Haaker, Harold Henry	CE	5	Omaha, Nebraska
	A	47	

Haas, Orville Francis	EE	35	El Paso
Haas, Raymond Christian	Com		Evansville, Indiana
Haase, Elizabeth Elsa	LAS (SS)		Oak Park
Haase, Harold Raymond	Com		Oak Park
Hackley, Elizabeth Pursel	LAS (SS)	65½	Urbana
Hackley, John Hale	EE	28	Marengo
Hada, Katsuki	LAS (SS)	91	Sacramento, California
Hadden, Chester Gilbert	Agr	104	Chicago
Hadelman, Louis	CE		Waukegan
Hagan, Bernard Anthony	ME		Champaign
Hagan, Thomas Angus	Agr	103	Champaign
Hager, Frank Stafford	ME		St. Louis, Missouri
Hager, Henry Merritt	Com	68	Dwight
Hahn, Archie	SS		Walla Walla, Washington
Hahn, Fred Charles	ChE	105	Springfield
Hahn, Grace Louise	HSagr	24	West Chicago
Haines, Forrest Livingston	Com	102	Urbana
Hair, Arthur J.	EE	35½	Greenville
Haish, Theodore Adam	Com	54	Hinckley
Hakanson, Arthur Ferdinand	SS		Chicago
Hake, Mrs. Minnie Thomas	Com		St. Louis, Missouri
Halas, George Stanley	CerE	41	Chicago
Halas, Walter Henry	AE	131	Chicago
Halbruge, Charles Morgan	Com	96	Rockport, Indiana
Haldeman, Glenn Merlin	EE	40½	Ponca City, Oklahoma
Hall, Allen Howell	LAS (SS)	21	New Germantown, New Jersey
Hall, Cecil James	Com		Urbana
Hall, Edward Knight	Agr (SS)	22½	Ladybrand, South Africa
Hall, Emory George	Com	64	Rockford
Hall, Helen Evalyn	Agr	29	Attica, Indiana
Hall, Joseph Lowe	ChE	33½	Sullivan
Hall, Karl William	ME		Cherokee, Iowa
Hall, Kenneth Canright	Com	31	Chicago
Halliday, Mabel	Mus sp		Clio, Michigan
Halligan, John Edison	A		Quincy
Halliwell, Ashleigh Drake	Com		Chicago
Halliwell, Pauline	LAS	113	Chicago
Halstrom, Bernhard Christian	AE	53	Chicago
Hamann, Christian	CE	46	Lockport
Hamill, Eugene Carl	AE	135	Bloomington
Hamilton, Chauncey Geyer	Com	69	Colfax
Hamilton, Don Herman	Agr	62	Paris
Hamilton, Donald Alan	A	52	Spokane, Washington
Hamilton, Ray Leonidas	Agr		La Salle
Hamilton, Tom Sherman	Ch	68	Paris
Hamilton, William Jacob	LAS (SS)	55	Latham
Hamm, Orville Pearson	Agr		Ludlow
Hammer, William Palmer	Agr	26½	Cooperstown, North Dakota
Hammet, Glenn Edward	REE		Clarence, Missouri
Hammon, Clarence Trumbul	Agr		Urbana
Hammond, Asaph Chandler	Agr	23	Warsaw
Hammond, Leonard Aaron	Agr	32	Warsaw
Hammond, Ruth Edith, A.B. (Drury Coll.) 1914	Lb		Springfield, Missouri
Hampson, Herbert	ME		Mattoon
Hampton, Ruth Margaret	LAS		Carterville
Hanaford, Earl Joseph	Com		Elgin
Hanawalt, William Gilbert	ME (SS)	3	Galva
Hance, George Martin	Agr		Marengo
Hancock, Miriam	HSagr		Chicago
Hancock, Myron Scott	EE	72	Beecher City
Hancock, Walden Wood	Com	36	Casey
Hand, Ella Marie	LAS		Champaign
Hanes, Ernest F.	SS		Mt. Morris
Hanger, Paul Newton	Agr	65	Urbana
Hanley, Chester Thomas	LAS		Jerseyville
Hannmore, John Leon	L	33	Urbana
Hanna, Morton	SS		Shelbyville, Kentucky
Hannush, Paul	Agr	117	Paterson, New Jersey
Hanschman, Fred Robert	AE	34	Dolton
Hansen, Andrea	SS		Chicago
Hansen, Anker Fred	A	32	Oshkosh, Wisconsin
Hansen, Clarence Magnus	Med	22½	Racine, Wisconsin
Hansen, Stanley	ME	113	Chicago
Hanson, Jennings William	EE		Chicago
Hao Tso Chang	Com	128	Wuchingsien, China
Harhricht, Harlan Carl	MnE	37	Hannibal, Missouri
Hardesty, Albert Vergil	Agr	30	Homer
Hardesty, Gladys Mabel	Mus		Homer
Hardiman, Leo Bernard	AE	70	Los Angeles, California
Hardin, Daniel Lawrence	AE		Kansas City, Missouri
Hardin, William Atwater	Agr	20½	Keithsburg
Harding, Frank Black	Agr		Chicago

Hardison, Carl Maxwell	SS	Columbia, Tennessee
Hardy, Clifton Stanley	LAS	Washington, D. C.
Hardy, Howard Henry	Agr	Watseka
Harland, Marion Boyer	Agr	32 Washington, Iowa
Harn, Jerry Anson	L	Lewistown
Harnack, Vernon Leslie	Ch	Urbana
Harner, Horace Hugo	A	143 Fulton, Missouri
Harnish, Wilber Eugene	SS	Mechanicsburg, Pennsylvania
Harper, Bertha	SS	Urbana
Harper, Charles A.	SS	Anna
Harper, Homer Munda	Agr (SS)	50½ East St. Louis
Harper, Lester Blaine	L	Pasadena, California
Harper, Owen Edward	SS	East St. Louis
Harrah, Chester Philip	Com	Bloomfield, Indiana
Harrington, Bernard Wilfred	LAS	Champaign
Harris, Abram Harry	A	Chicago
Harris, A. Ross	SS	Urbana
Harris, Charles Leland	EE	13 Washington, Indiana
Harris, Elizabeth Payne	LAS	Champaign
Harris, Elodia Ferne	HSLAS	104 Marion
Harris, Hannah Hahn	LAS	70 Champaign
Harris, Herbert Henry	SS	Cairo
Harris, Leo Gabriel	Com	107 Wilton Junction, Iowa
Harris, Pauline Ciora	HSLAS	Arcola
Harris, Robert Bruce	Agr	26½ Gilman
Harris, William Rutledge	L	28 Macomb
Harrison, Benjamin Samuel	LAS	40 Villa Grove
Hart, Marion Murphy	LAS	33 Benton
Hart, Richard Nelson	Agr	90 Brighton
Hart, William Ward	L	56 Benton
Hartigan, Frank J.	Com	32½ Chicago
Hartley, J. Christine	SS	Paris
Hartley, Omer	Agr	28 Mattoon
Hartman, Ervin Christian	LAS	Waterloo
Hartman, Laura Ellen	LAS	112 Milford
Hartmann, William Monroe	Ch	5 Chicago
Hartwell, Godfrey	AE	37 La Porte, Indiana
Harvey, Addison Adle	SS	Chicago
Harvey, Mrs. Esther Finlay	SS	New Orleans, Louisiana
Harvey, Eugene James	EE	5½ Chicago
Harvey, Ralph Frame	Agr (SS)	103½ Indianapolis, Indiana
Harvey, Robert Allen	EE	35 Fairfield
Harwood, Frank D.	SS	Johnston City
Harwood, Sylvan Dix	LAS	105 Carrollton
Harz, Albert William	Agr	73 Champaign
Hasbrook, Robert Locke	Com	Chicago
Hatch, Richard James	CerE	Chicago
Hathaway, Warren Kennedy	ChE	37 Chicago
Hathorne, Wade Sherman	Ch	24 Waukegan
Hattenauer, Robert Clinton	LAS	94 Peru
Haupt, Dorothy	LAS	Chicago
Hawes, Henry Clifford	Com	78 Atlantic
Hawkins, Emin Witherspoon	Agr	97 Fairmount
Hawkins, Marjorie D.	SS	Chicago
Hawkinson, Carl Otto	AE	108½ Marquette, Kansas
Hawley, Jessie M.	SS	Downers Grove
Haworth, Claiborne Charles	Com	St. Joseph
Haxton, R. K.	SS	Greenville, Mississippi
Hayes, Clarence McCleskey	Agr	Washington, Indiana
Hayes, Columbus Ferrel	Com	3 New London, Iowa
Hayes, Earle Melville,	Agr	61 Kings
Hayes, Edward Bean	LAS	34 Urbana
Hayes, Frank Kerr	Agr	Chicago
Hayes, Oliver	Agr	Pleasant Plains
Hayne, Walter Elliott	EE	33 Chicago
Hays, Frank	CE	Chicago
Hazen, Cecil Reeder	Agr	29 Champaign
Hazen, Gladys May	HSAgr	Rockford
Head, Glenn Lloyd	LAS (SS)	Sciota
Headley, Francis Leo	Agr (SS)	Paris
Heald, Robert Penfield	A	Peoria
Healy, William Carleton	Com	36 Glenburn, North Dakota
Heard, John Thomas Harris	Agr sp	St. Louis, Missouri
Heard, Lucy Evans	SS	West Point, Mississippi
Heath, Dwight Frederick	LAS	102 Chicago
Heath, Monroe	LAS	768 Chicago
Heaton, Henry	ChE	Rosedale, Indiana
Hecker, Charles	Mus	Cincinnati, Ohio
Hecketsweiler, Roy Thomas	LAS (SS)	Area
Heckler, Leo Chrysostom	EE (SS)	Harvey
Heckmann, Louis Frederick Jr.	A	New Harmony, Indiana
Hedgcock, John Franklin	Agr	Plymouth
Hedgcock, Martha Elizabeth	HSLAS	32 Plymouth
Hedgcock, Nellie May	HSLAS	102 Plymouth
Hedges, Bertram A.	LAS	93½ Downing, Missouri
Hedrick, Edna May	LAS	105 LeRoy

Hedrick, George Samuel	Agr	100	LeRoy
Heffron, Norman	Com	69	Chicago
Hegener, Archie Leo	LAS	74	Bluff Springs
Hegner, John Robert	EE	31	Stuttgart, Arkansas
Hegsted, Martin Anton	AE	79	Chicago
Hein, Mary Rachael	HSAgr	66	Champaign
Hein, Mason August	Agr	109	Champaign
Heindel, John Harold	AE	73	Elgin
Heindel, Spencer Rehbock	CE	28	Stockton
Heineke, Paul Henry	L	28	Streator
Heinicke, Herbert Martin Edward	ChE	114	St. Louis, Missouri
Heinz, Katherine L.	SS	24	Champaign
Heise, Walter Otto	Agr	31	Neponset
Helgren, Fred Joseph	LAS	31	Florence, Wisconsin
Heller, Henry Frederick	LAS	75	Des Plaines
Helm, Ethel Margaret	SS	25	La Junta, Colorado
Helm, Harry Gray	LAS	114	Grayville
Helm, Herbert Clarence	LAS	62	Metropolis
Helmrreich, Agnes Johanna	LAS (SS)	75	Crescent City
Helper, Kenneth Louis	Agr	13	Henry
Hemb, Harold B.	ME	39	Dundee
Hemenway, Margaret	LAS	13	Evanston
Hemmings, Nellie M.	SS	100	Pittsburg, Pennsylvania
Henderson, Alexander Swift	LAS (SS)	127	Chicago
Henderson, Frank Spoor	EE	164	Sterling, Colorado
Henderson, James Bruce	LAS	31	Millers Ferry, Alabama
Henderson, John Charles	Ch	55	Champaign
Henderson, Melvin	Agr	4	Leland
Henderson, William, Jr.	ME	5	Millers Ferry, Alabama
Henley, Thomas Edward	Agr	61	Mattoon
Henn, Hildagard Anna Sarah	HSAgr	31	Toluca
Hennig, Caspar Ferdinand	MSE	94	Mendota
Hennings, Elfreda Viola	HSLAS	55	Elgin
Henry, Elton Barbara	SS	25	Fairbury
Henry, Helen	SS	62	Peoria
Henry, Jennie Viee	HSLAS	13	Alton
Henry, Victor Max	Agr	61	Champaign
Hensold, Harold Hartman	Agr	71	Tonica
Henson, Margaret Emily Virginia	Agr	55	Urbana
Henson, Ray David	L	39	Johnston City
Heppburn, Nelson W., M.S., 1910	Agr	55	Urbana
Herdman, Frank Victor	ME	4	Winnetka
Hermanson, Frank Alfred	Com (SS)	93	Milford
Herr, Charles Osmer	Agr	4	Quincy
Herriott, Opal Vida	SS	55	Seymour
Herron, Ernest R.	SS	37	Lima, Ohio
Hershman, Okla Harold	ME	37	Tipton, Indiana
Hess, Lester S.	SS	37	Capron
Hess, Paul David	MnE	107	Pittsburg, Kansas
Hesser, George Batchelder	Agr	37	Urbana
Hester, Elizabeth	SS	107	Delavan
Hexter, Avronie Nathan	A	37	Memphis, Tennessee
Heyduck, Lawrence	ME	107	Centralia
Hickey, Daniel Webster, Jr.	EE	107	Aurora, Missouri
Hickey, John Raymond	CE	107	St. Louis, Missouri
Hicks, George	Agr	107	Chadwick
Hicks, Victor LaNaier	Agr	107	Urbana
Hiebel, Leonard B.	Agr	107	Waterloo, Wisconsin
Hieronymus, Pendleton Elbert	Agr	107	Atlanta
Hiett, Mable	SS	107	Keithsburg
Hiett, Robert C.	SS	107	Keithsburg
Higgins, Irma May	HSLAS (SS)	93	Chalmers
Higgins, Margaret Elizabeth	LAS	33	Champaign
Higgins, Mary Marguerite	SS	33	Joliet
Higgins, Nash	SS	81	St. Paul, Minnesota
Highbarger, John Foster	Agr	81	Chicago
Hilbert, John	SS	80	Eaton, Ohio
Hildebolt, Harry Clifford	Agr	80	Broadlands
Hildreth, Leslie Marquis	L	67	Chicago
Hill, Bernard Eli	CE	128	Harvard
Hill, Fred James	CerE	67	Sullivan
Hill, Gertrude	SS	128	Joliet
Hill, Grant Logan	Com	28	Crawfordsville, Indiana
Hill, Isaac Newton	SS	32	Mattoon
Hill, James Edward	Agr	126	Carthage
Hill, Katharine K., B.S., 1915	LAS sp	117	Chicago
Hill, Lawrence Elias	MnE	117	Mt. Carmel
Hill, Loren Clifford	Agr	114	Urbana
Hill, Lucy Belle	Mus (SS)	114	Flora
Hill, Robert Earl	L	28	Woodstock
Hill, Roger Edward	LAS	73	East St. Louis
Hill, Warren Elliott	Agr	116	Fairfield
Hilliard, Lyndal	LAS	16	Pekin
Hills, Airy	LAS	79	Evanston
Hills, David Avery	EE	63	St. Louis, Missouri
Hilpert, Martha	HSAgr	63	

Hilsabeck, Mildred Eugenia	<i>Mus</i>	17	<i>Windsor</i>
Hilton, Ivan Jay	<i>LAS</i>	74	<i>Springfield</i>
Himmelreicher, Walter August	<i>CE</i>	74	<i>Chicago</i>
Himstedt, Ralph Ebner	<i>L</i>		<i>Boody</i>
Hines, Lyle Wilbur	<i>Com</i>	50	<i>Peoria</i>
Hinman, Walker McConnel	<i>LAS</i>	35	<i>Dundee</i>
Hinrichs, Herbert Stassen	<i>Agr</i>	64	<i>Joliet</i>
Hinshaw, Joseph Howard	<i>L</i>	51	<i>Harrisburg</i>
Hinton, Stanley Winfield	<i>Agr</i>	52	<i>Foosland</i>
Hipple, Roy Everett	<i>Agr</i>	66	<i>Waterman</i>
Hirstein, John A.	<i>Agr</i>	69½	<i>Summerfield</i>
Hirt, Edward George	<i>A</i>	108	<i>St. Cloud, Minnesota</i>
Hirth, Laura Edna	<i>HSAgr</i>	108	<i>Quincy</i>
Hite, Lucretia R.	<i>SS</i>		<i>East St. Louis</i>
Hitt, Mabel	<i>LAS</i>	102½	<i>Herrick</i>
Hixon, Hope Ada	<i>LAS</i>		<i>Urbana</i>
Hodge, Clarence Richard	<i>LAS</i>	11	<i>Oregon</i>
Hodge, John Reed	<i>AE</i>	37	<i>Carbondale</i>
Hofer, Emil	<i>Agr</i>		<i>Freeport</i>
Hoehn, Fremont John August	<i>CerE</i>	102	<i>Carlisleville</i>
Hoelinke, Herbert William	<i>AE</i>	37	<i>Sheboygan, Wisconsin</i>
Hofacker, Olga Vera	<i>SS</i>		<i>Peoria</i>
Hoffman, Aaron Andrew	<i>Com</i>	71	<i>Dwight</i>
Hoffman, Gaylord Frederick	<i>Agr</i>		<i>Pesotum</i>
Hoffman, Harold	<i>Com</i>		<i>Dwight</i>
Hoffman, Louis Arthur	<i>LAS</i>	66	<i>Harvey</i>
Hoffman, Max Robert	<i>ME</i>	32	<i>De Pue</i>
Hoffmann, Mary Margaret	<i>LAS</i>		<i>Pesotum</i>
Hofreiter, Jessie Belle	<i>LAS</i>		<i>Green Valley</i>
Hogan, Harold Eugene	<i>ChE</i>	72	<i>Lanark</i>
Hogarth, Frank William	<i>SS</i>		<i>Oconomowoc, Wisconsin</i>
Hohm, Harley Daniel	<i>Agr (SS)</i>	23	<i>Sycamore</i>
Hohman, Elmo Paul	<i>LAS</i>	104	<i>Nashville</i>
Hoke, James Ray	<i>Agr</i>		<i>Camp Point</i>
Hoke, P. M.	<i>SS</i>		<i>Colfax</i>
Holiday, Kenneth Marion	<i>ChE</i>	33	<i>Mattoon</i>
Holbert, Howard Valmore	<i>LAS</i>		<i>Chicago</i>
Holecek, Albert Bernard	<i>L</i>	32	<i>Chicago</i>
Holinger, Arnold Carl	<i>AE</i>	116	<i>Chicago</i>
Hollandsworth, Blanche Louise	<i>LAS</i>	114	<i>Canton</i>
Hollandsworth, Helen Margaret	<i>LAS</i>	65	<i>Canton</i>
Hollingsworth, Chauncey Raymond	<i>EE</i>		<i>Stronghurst</i>
Hollis, D. P.	<i>SS</i>		<i>Pittsfield</i>
Hollister, Noble Parker, B.S., 1915	<i>Agr</i>	160	<i>Champaign</i>
Holloway, Doris Jean	<i>HSLAS</i>	99	<i>Detroit, Michigan</i>
Holman, Clarence Ladd	<i>Com</i>		<i>Ellis, Kansas</i>
Holmes, Albert A.	<i>SS</i>		<i>Bowen</i>
Holmes, Charles Vernon	<i>LAS</i>	101	<i>Manteno</i>
Holmes, Floyd Royal	<i>Agr</i>	64	<i>Baylis</i>
Holmes, Laura Clark	<i>HSAgr</i>	65	<i>Chicago</i>
Holmes, Oliver Wendell	<i>Agr</i>	56	<i>Greenfield</i>
Holsinger, Charles Roy	<i>SS</i>		<i>Sterling</i>
Holt, Frank Maurice	<i>Com</i>		<i>Milwaukee, Wisconsin</i>
Holt, Herbert Edward	<i>Agr</i>		<i>Wheaton</i>
Holten, Joseph Thomas	<i>LAS sp</i>		<i>East St. Louis</i>
Holton, Gladys Elizabeth	<i>LAS</i>	10½	<i>Chicago</i>
Holtze, Harry Stevens	<i>AE</i>	111	<i>Sioux City, Iowa</i>
Holtzman, Harold Hoover	<i>Agr</i>		<i>Chicago</i>
Honaker, Lombe Scott	<i>SS</i>		<i>Wytheville, Virginia</i>
Honey, Myrtle Eveline	<i>HSAgr (SS)</i>	38	<i>Dixon</i>
Honnold, Loie	<i>Agr</i>	33	<i>Kansas</i>
Hoo, Te-Chum	<i>SS</i>		<i>Hunshan Huanan, China</i>
Hoots, Paul Frost	<i>Ch</i>		<i>Mattoon</i>
Hopkins, Eugene Canfield	<i>Agr</i>	63	<i>Yorkville</i>
Hopkins, Gold Samuel	<i>Com</i>	107½	<i>Champaign</i>
Hopkins, Guy Beatty	<i>EE</i>	82	<i>New Canton</i>
Hopkins, Samuel Curtis	<i>Com (SS)</i>	70	<i>Urbana</i>
Hopson, Emet	<i>Agr</i>	60	<i>Girard</i>
Horbitt, Joseph	<i>LAS</i>	30	<i>Moline</i>
Horen, Louis	<i>CE</i>	16	<i>Venice</i>
Horimura, Hiroshi	<i>EE</i>	68	<i>Ohita, Japan</i>
Hormel, Dorothy Stewart	<i>LAS</i>	107	<i>Wichita, Kansas</i>
Hormel, Olive Deane	<i>LAS</i>	108½	<i>Wichita, Kansas</i>
Horney, Reid Bunn	<i>LAS</i>	60	<i>Colfax</i>
Horney, Warren Rees	<i>Agr</i>	68	<i>Colfax</i>
Horning, Mary	<i>SS</i>		<i>Harrisburg</i>
Hornkohl, Siegfried Irving William	<i>SS</i>		<i>St. Joseph, Missouri</i>
Horwich, David	<i>AE</i>	37	<i>Chicago</i>
Hosford, Susan Eunice	<i>HSLAS</i>	105	<i>Geneseo</i>
Hoskins, Leonard Cunningham	<i>ME</i>		<i>E. Las Vegas, New Mexico</i>
Hoskins, Robert Keith	<i>Com</i>	16	<i>Terre Haute, Indiana</i>
Hoskinson, Bruce	<i>SS</i>		<i>West York</i>
Hosman, Paul DeWitt	<i>AE</i>	11	<i>Norfolk, Nebraska</i>
Hostettler, Lloyd Earl	<i>EE</i>		<i>Chicago</i>
Hostettler, William Benton	<i>Com</i>	32	<i>Decatur</i>

Hottes, Flora Emily	LAS (SS)	34½	Urbana
Hottinger, Ethel Marian	LAS		Chicago
Hotz, Wilfred Henry	Com		Edwardsville
Houchens, Jessie Batcheller	SS		Urbana
Houg, Orville Adlai	Com	72	Dows, Iowa
Hough, Charles Francis	L	56	Dawvers
Hough, Waldern Henry	AE	111	Oak Park
Houghton, Dale Neely	Com		What Cheer, Iowa
Hoult, Charles Howard	LAS	29	Chrisman
Housel, Charles Edward	EE		DeKalb
Houser, Irma L.	LAS	107	Farmer City
Houston, Margaret	HSagr	77	Chicago
Houston, Marion Earl	LAS		Beardstown
Hoven, Harold Arthur	Agr		Chicago
Hovey, Howard Weston	A (SS)	35	Kansas City, Kansas
Howard, Carl Goch	Agr	69	Benton
Howard, Charles Gerard	LAS (SS)	39½	Oakwood
Howard, Mabelle Lorraine	HSagr	16	Le Roy
Howard, May Beatrice	HSagr		Chicago
Howard, Paul Wesley	Com		St Joseph
Howe, Charles Ralph	Agr	115½	Champaign
Howe, Clifford	Com		Miles City, Montana
Howe, Edna Mae	LAS		Rantoul
Howe, Josephine	LAS	38	Mansfield
Howe, Roger Faxon	Agr	34	Chicago
Howe, William Thomas	Agr	112	Champaign
Howell, Edward Tillson	ME		Dixon
Howell, Grace	SS		Lewiston
Howell, Paul J	Com	35	Beloit, Wisconsin
Howells, Mary Georgia	HSagr	31	Staunton
Howells, Ruth Cound	LAS	31	Staunton
Howes, Edward Blasier	ME	6	Chicago
Howk, Charles Dean	SS		Momence
Howk, Thomas Clark	LAS		Momence
Howland, Ione F.	LAS		Harvey
Hsieh, Zen	EE	120½	Urbana
Hsun, Ching Lee	LAS	64	Nan Chang, China
Hsun, Jin Jee	LAS	65	Nan Chang, China
Huaco, Daniel Octavio	Com		Arequipa, Peru
Huaco, Sergio Arturo	SS		Arequipa, Peru
Hubbard, Aden Elden	SS		Avon
Hubbard, Willis Wilkinson	A	111½	Beloit, Kansas
Hubbell, Edward Lawrence	AE	4	Davenport, Iowa
Huber, Andrew Joseph	REE	75	Perryville, Missouri
Huber, Marie	LAS		La Salle
Huber, William Henry Perry	SS		Lafayette, Ohio
Huch, Emma Margaret Edna	LAS		Chicago
Hudler, Charla	HSLAS		St. Louis, Missouri
Hudson, Edith Elizabeth	LAS	68	Chicago
Hudson, Hersel Windell	Agr		St. Joseph
Huff, Byron Robert	Com	26	Urbana
Huff, Marguerite Lydia	LAS	56	Urbana
Huford, Charles Thurman	Agr	99½	Carmi
Huggler, Lillian Frieda	HSLAS	32	East St. Louis
Hughes, Martin Collins	EE	101	Berwyn
Hughitt, Anna Sue	LAS	23	Escanaba, Michigan
Huisken, Harry Arnold	CerE	37	Chicago
Hulburd, Hazel Emily	HSLAS	59	Cleveland, Ohio
Hull, Trustum Harold	Com		Clinton
Hulson, John William	RME		Keokuk, Iowa
Hultman, Ivar Nimes	ChE (SS)	82	Chicago
Humeland, Ralph Wendel	CerE	32	Meirose Park
Humphrey, Kenneth Blaine	EE	114	Waterloo, Wisconsin
Humphreys, Gertrude	HSLAS		Organ Cave, W. Virginia
Humphreys, Robert Hatch	Agr	50½	Atkinson
Humrichouse, Katie Lydia Edna	Com		St. Joseph
Hungerford, Charles Everett	MSE	131	Loda
Hungerford, Harold Norton	Agr		Joliet
Hunsley, Alice Lillian	HSLAS	32	Champaign
Hunt, Dorothy Harriet	HSagr		Cambridge
Hunt, Frank Sumner	CerE (SS)	105	North Brookfield, Mass.
Hunt, Leslie Lyman	Agr (SS)	93½	Sparland
Hunt, Marsden Healey	CerE		Urbana
Hunt, Milton Tilmore, Jr.	Com		Warsaw
Hunter, Adella Aileen	LAS		Findlay
Hunter, Lloyd Hiram	Com	5	Henry
Hunter, Margaret	HSLAS	32	Chillicothe
Huntington, Homer Irving	Agr	103	Chicago
Hurdle, Ennis Carroll	EE	35	Mt. Sterling
Hurlburt, Helen Elizabeth	HSLAS	26	La Mesa, California
Hurley, Frank John	Com		Chicago
Hurley, Luther Thomas	Com		Liberty Mills, Indiana
Husson, Harry Lee	EE	72	Auburn
Husted, Guy Harold	SS		Roodhouse
Husted, Merle Raymond	Agr	33	Roodhouse

Hutchinson, Henry L.	<i>Agr</i>	37	Burnhope, England
Hutchinson, Oliver Cromwell	<i>ME</i>	125	Menominee, Michigan
Hutchison, Josephine I.	<i>LAS</i>		Mineral Point, Wisconsin
Hutton, Clifford	<i>A</i>		Waterloo, Iowa
Huxtable, Winnie	<i>SS</i>		Kansas City, Missouri
Hwang, Lin	<i>LAS</i>		Tsao Dian, NanChao, Honan, China
Hyde, Harvey Woolsey	<i>ChE</i>		Chicago
Hyde, Russell Choate Miller	<i>LAS</i>		Rantoul
Hylen, Harry Andrew	<i>A</i>		Chicago
Hyndman, Robert Jr.	<i>EE</i>		Cincinnati, Ohio
Hypes, Mrs. Cora	<i>LAS (SS)</i>	120½	Ronceverte, West Virginia
Hypes, George William	<i>SS</i>		Roe, West Virginia
Hypes, James Lowell	<i>SS</i>		Urbana
Ide, Hiram Russell	<i>Agr</i>	31	Washington, D. C.
Ide, Robert Armitage	<i>Com</i>		Washington, D. C.
Illick, Warren C.	<i>Agr</i>	60	Burlington, Iowa
Imes, Oliver Stapp	<i>EE (SS)</i>	104½	Champaign
Imes, Ralph	<i>LAS</i>	60	Macomb
Ingalls, Horace Banon	<i>Agr</i>	100	Urbana
Ingels, Sherman	<i>Agr</i>	101	La Fayette
Ingram, Ralph Lindsay	<i>Agr</i>	39	Chicago
Ingwersen, Alfred Henry	<i>A</i>	36	Moline
Ingwersen, Henry Newton	<i>Agr</i>		Chicago
Inman, Cordelia Birch	<i>SS</i>	2½	Bellflower
Inman, Dean Maxwell	<i>SS</i>	5	Bellflower
Ireland, Matilda Isabel	<i>LAS</i>	22	Washburn
Irick, Carl Cuthbert	<i>Med</i>	27	Pittsfield
Irvine, Robert Patterson	<i>Agr</i>		Wilmette
Irwin, George Purvines	<i>Agr</i>		Pleasant Plains
Isaacson, Oliver Theodor	<i>ME</i>	20	Lamberton, Minnesota
Ivanoff, Tsuetan	<i>Agr</i>		Kouatchitza Low, Bulgaria
Iwig, Howard Philip	<i>Com</i>	27	Peoria
Jaccard, Elizabeth Sarah	<i>HSLAS</i>	4½	Webb City, Missouri
Jackman, Charles Harold	<i>ME</i>	108	Elgin
Jackson, Anna Elizabeth	<i>LAS</i>	23	Champaign
Jackson, Ernest Theodore	<i>SS</i>	36½	Odin
Jackson, Mabel, A.B., 1915	<i>SS</i>		Danville
Jackson, Manley Seymour	<i>AE</i>	99	Pine River, Minnesota
Jackson, Martha Elizabeth	<i>HSAgr</i>		Urbana
Jackson, Thomas Henry	<i>Agr (SS)</i>	34	Champaign
Jacobi, Herbert Jacob	<i>A</i>		Milwaukee, Wisconsin
Jacobson, Bernard Edwin	<i>Agr</i>	36½	Chicago
Jacobson, Henry George	<i>Agr</i>	34	Chicago
Jahr, Myra Bertha	<i>HSLAS</i>	27	Neillsville, Wisconsin
Jakubowski, Stanley Anton	<i>EE</i>		Chicago
James, Harriet Lillian	<i>HSLAS</i>	71	Amboy
James, Helen Ida	<i>LAS</i>		Whitewater, Wisconsin
James, Lenton Willis, B.S., 1915	<i>SS</i>		Canton
James, Lois Everett	<i>HSAgr</i>		Fairbury
James, Russell Broadway	<i>LAS</i>		East St. Louis
Jamison, Mrs. Edith Virginia	<i>SS</i>	3	Urbana
Janes, Nellie	<i>LAS</i>	35	Kewanee
Janssen, Elmer Theodore	<i>Com</i>	51	Sterling
Jarmulsky, Louis	<i>EE</i>	57	Maywood
Jarnagin, Robert	<i>L</i>	57	Shelbyville
Jarvis, Rowling	<i>EE</i>	122	Hinsdale
Jasper, Edward Miron, B.S., 1911	<i>SS</i>		Newton
Jasper, Lucinda Emmeline	<i>HSLAS</i>		Liskeard, England
Jay, Edith Lillian	<i>Agr sp</i>		Florence, Colorado
Jeffers, Leslie Pickering	<i>EE</i>		Arcola
Jefferson, John Benjamin	<i>ME</i>	142½	Chicago
Jenkins, Lydia Geneva	<i>LAS</i>	24	Clark's Hill, Indiana
Jenkinson, Robert Edwin	<i>LAS</i>	36	Arlington Heights
Jenks, Philip Dorsey	<i>ChE</i>	29	Indianapolis, Indiana
Jenner, Lawrence Tenney	<i>Com</i>	35	Evansville, Indiana
Jennett, Harold Patrick	<i>EE</i>		Streator
Jennings, Alma Irene	<i>HSLAS</i>	60	Champaign
Jennings, Carson Gary	<i>CE</i>	110	Carlinville
Jensen, Jorgen Edward	<i>EE</i>	43½	Chicago
Jervis, Florence May	<i>Mus</i>	107	Champaign
Jessen, Hubert, B.S., 1915	<i>SS</i>		Alto Pass
Jewett, Eleanor Rountree	<i>Agr</i>	21	Chicago
Jez, Leo Charles	<i>Agr</i>	151½	Chicago
Jibben, Raleigh J.	<i>Agr</i>		Green Valley
Jobst, Herman Robert	<i>A (SS)</i>	69	Omaha, Nebraska
Jockisch, Anna Zelma Elizabeth	<i>HSLAS</i>	61	Beardstown
Johns, Donald Charles	<i>MnE (CS)</i>	102	Danville
Johns, Evelyn Gordon	<i>LAS</i>	60	Danville
Johns, Marion Elizabeth	<i>LAS</i>	30	Rockford
Johnson, Carl Wilhelm	<i>Com</i>		Batavia
Johnson, Claude Francis	<i>ME</i>		South Haven, Michigan
Johnson, Edna Louise	<i>LAS</i>		Brimfield
Johnson, Elfreth George	<i>Agr (SS)</i>	85	Medora
Johnson, Everett Louie	<i>Agr</i>	32	St. Charles

Johnson, Floyd Henning	Com	34	St. Charles
Johnson, Harry Julius	Agr	67	Gerlaw
Johnson, Hortense	LAS		Princeton
Johnson, John Robert	LAS		Decatur
Johnson, John Walter	Med	33	Chicago
Johnson, Joseph Benjamin	Agr	17	Harrisburg
Johnson, Julius Nicholai	Com	70	Elgin
Johnson, Marcus Leonard	CE	104	Park Ridge
Johnson, Mary Fern	LAS	100	Urbana
Johnson, Maurice Carl	ME	108	Omaha, Nebraska
Johnson, Maynard Wayne	Com	112	Casey
Johnson, Mildred, A.B. (Western Reserve Univ.) 1915	Lb		Franklin Grove
Johnson, Porter Leo	Agr		Stockton
Johnson, Radford Murray	Agr	53	Crossville
Johnson, Ralph N.	Agr		Knoxville
Johnson, Richard Henderson	LAS (SS)		Danville
Johnson, Robert Eugene	EE	90	Lawrenceburg, Kentucky
Johnson, Roy Ryle	Agr		Paris
Johnston, Douglas Gentry	Agr		Alton
Johnston, Dwight Irwin	Com (SS)	104½	Sycamore
Johnston, Harold Boomer	LAS		Champaign
Johnston, James Arthur	SS	8	Hamilton
Johnston, James Martin	LAS		Chapel Hill, North Carolina
Johnston, Lillian Ruth	HSLAS	33	Champaign
Johnston, Mabel	HSLAS	32	Carlyle
Johnston, Mary Grace, A.B. (Mount Union Coll.) 1914	Lb		Canfield
Johnston, Paul Evans	Agr	67	Milton
Johnston, Pauline	LAS		Alton
Johnston, Wayne Andrew	Com		Champaign
Jones, David Robert	CE	110	Streator
Jones, Dudley Emerson	A	69	Little Rock, Arkansas
Jones, Elizabeth Sophia	HSAgr sp		Raymond
Jones, Frances Beulah	HSAgr	65	Champaign
Jones, Frank William	Agr	70	Bloomington
Jones, George Wilson	LAS	24	Joliet
Jones, Howard Kenworthy	ME	72	Chicago
Jones, J. Russell	Com	98	Springfield
Jones, Mack Marquis	EE	40	Tonkawa, Oklahoma
Jones, Marian Lucile	HSAgr	52	Ft. Smith, Arkansas
Jones, Marvel A.	LAS	27	Urbana
Jones, Milton D., B.S., 1915	SS		Raymond
Jones, Paul Clifford	EE	102	Henry
Jones, Paul Van Brunt Ph.D. (Univ. of Pennsylvania) 1912	Mus sp		Champaign
Jones, Orion Chester	SS	110	Redmon
Jones, Robert Taylor	Mus	148	Vincennes
Jones, Trevor Leslie	Agr		Chenoa
Jones, Walter Ortis	Com	68½	Champaign
Jones, Warren Paul	Agr	37	Chicago
Jones, William Joseph	Com		Elgin
Jones, William Robert	SS	63	Kirkland
Jordan, Roy Vail	SS	4½	Herrin
Joseph, Effie Catherine	LAS	22	Hayden, Indiana
Joyner, Mildred	LAS	111	Harrisburg
Judd, Elizabeth Gladys	LAS	27	Champaign
Judd, Mildred Marie	Mus	54	Champaign
Judkins, Roy Lamont	SS		Grand Island, Nebraska
Judkins, Walter William	SS		Grand Island, Nebraska
Judson, Frank Monteath	Com (SS)	78½	Chicago
Julian, Scott Millholland	Agr	34	Little Rock, Arkansas
Jungkunz, Louis Frederic	Com	101	Freeport
Justice, James Clymer	Agr		Logansport, Indiana
Kadinsky, Max Joseph	RCE	113	Chicago
Kadyk, David James	LAS		Fulton
Kahler, Thomas Debenham	Agr		Carlyle
Kaiser, Karl John	Med	100½	Aurora
Kalb, Ervin Frederick	SS	6	Houston, Texas
Kalthoff, Frederick Caspar	AE (SS)	39	Chicago
Kamenoff, Alexander	LAS		Bulgaria
Kamm, Rufus Maurice	Ch	103	Highland
Kamm, Wilbur Fred	LAS (SS)	101	Highland
Kamp, Henry Wilbur	LAS	68	Watseka
Kane, Robert Clair	EE	107	Warren
Kane, William Harold	CerE	50	Champaign
Kang, Wai	ME (SS)	66	Canton, China
Kanne, Herbert	Agr		Peoria
Kanne, Raymond Aloysius	Agr		Peoria
Kantor, James	EE	114	Chicago
Kany, Julius Franz	SS	5	Dolgeville, New York
Karcher, Isadore Philip	Com		Herscher
Karkow, Conrad Hansen	LAS	33	Chicago
Karr, William Mabry	Com	17	Flora
Karraker, Alva Hugo	Agr	115½	Dongola
Kasten, William Henry	Agr	93½	Schenectady, New York

Katar, Lillian	SS	8	Galesburg
Katlinsky, Francis	CerE	31	Chicago
Katz, William Maurice	Com		Chicago
Kaufman, David Louis	Com		Bellefontaine, Ohio
Kaufman, Willard Seaton	A	27	Richmond, Indiana
Kaufmann, Adolph Henry	ChE	74	Chicago
Kaup, George Albert	Agr	51	Chicago
Kawin, Louis	LAS		White Hall
Kayser, Alfred Charles	CE	27	Des Plaines
Kayser, Clarence Samuel	AE	25	Decatur
Kayser, Lawrence Maurice	AE	35	Decatur
Keach, Walter Moore	Agr	102	Crothersville, Indiana
Keagy, Abraham Reuel	ME	63	Hot Springs, Arkansas
Keck, Charles Everett	LAS		Champaign
Keck, George Fred	AE	43	Watertown, Wisconsin
Keefe, James	EE		Starling
Keefer, Caroline	HSagr		Amboy
Keener, Ora Sylvester	Ch	113	Macomb
Keepers, Floyd Willard	Agr		Mazon
Keepers, Lloyd William	Agr		Mazon
Kees, Homer Goldsmith	CerE	68	Litchfield
Keeslar, Nellie	LAS		Danville
Keifffer, Lawrence Raymond	EE	35	Robinson
Keith, Genevieve Emma	LAS	32	Hinckley
Keitoku, Sakai	LAS (SS)	93	Fukushima, Japan
Kell, Sherman Little	SS	121 $\frac{1}{2}$	Benton
Keller, Arthur Raymond	CE	113 $\frac{1}{2}$	Mt. Carmel
Kelley, Edith Maurine	LAS		Camp Point
Kelley, Francis Hugh	Agr	119	Urbana
Kelley, Henry Phillips	Agr	93	Champaign
Kelley, Iva	LAS	31	Urbana
Kelley, Leo Harper	Com		Shelbyville
Kellogg, Samuel Adams	Agr	140	Wheaton
Kelly, Fred Hanford	L	61	Mattoon
Kelly, Henry Eli	CE	33	Charleston
Kelly, Jessie Maurene	HSLAS	28	Atlanta
Kelly, John Thomas	ME	39	Oak Park
Kelly, Luke Leo	SS		Boston, Massachusetts
Kelly, Margaret Agnes	SS	8	Vandalia
Kelly, Philip John	Com		Chicago
Kemp, Arnold Raman	Agr	64 $\frac{1}{2}$	Waynetown, Indiana
Kemp, Anna B.	SS	52	Normal
Kemp, Charles Delbert	Agr		Waynetown, Indiana
Kemp, Hyman	RCE		Chicago
Kennedy, Florence Atchison	SS		Beaufort, South Carolina
Kennedy, James Walsh	Com		Urbana
Kennedy, Kaywin	LAS (SS)	64	Minonk
Kennelley, Griffith Sidney	CerE		Joliet
Kenner, Byron Florence	ME	126 $\frac{1}{2}$	Pasadena, California
Kenny, Marion Katheryne	HSagr		Champaign
Kenshalo, Ralph	L	60	Fairfield
Kent, Everett Frank	Agr	78	Gridley
Kent, Horace Ellsworth	CE	32	Urbana
Kent, Paul Fraser	AE	28 $\frac{1}{2}$	Gridley
Ker, Lorraine Margaret	LAS	31	Chicago
Kern, Florence Ellen	HSagr	63	Champaign
Kern, Vernon Harlow	Agr	115 $\frac{1}{2}$	Gays
Kerner, Julius Caesar	ME	70	Cicero
Kerr, Grayson Alexander	Agr	32	Venice
Kerr, Lyda Kathryn	LAS	30	Urbana
Kerr, Ralph	Agr	16 $\frac{1}{2}$	Urbana
Kerr, Virgil Edwin	LAS		Metropolis
Kesi, Joseph, Jr.	AE	21	Edwardsville
Kessler, James	Mus sp		Urbana
Ketch, James Moss	EE	42	Decatur
Ketelhut, William Hermann	EE		South Haven, Michigan
Keusink, Helen Bertha	HSagr	58	Champaign
Keyes, Fanshawe Martin	LAS	21	Chicago
Keyes, Hubert Ashington	Med		Chicago
Keyes, Otis Walton	SS	3	Rantoul
Khan, Obaidulla	Med		Jullundur City, India
Khan, Rahmat Ali	LAS		Khanaura, India
Kidd, George Wilson	CE	98	Chicago
Kidd, Lilace Mazoe	LAS	60 $\frac{1}{2}$	Astoria
Kidston, Roy Palmer	Agr		Chicago
Kiessig, Paul Peter	Agr	84	Berkeley, California
Kilbride, Edward Robert	Agr		Springfield
Kile, Billye	Com		Rockford
Kile, Laura LaRhue	LAS (SS)	11 $\frac{1}{2}$	Rockford
Kimball, Frank Sherman	LAS	13	Rockford
Kimman, John William	Agr		Chicago
Kimmel, Clarence Eugene	L	19	DuQuoin
Kimmell, Levett	Agr	96 $\frac{1}{2}$	Chauncy
Kincaid, Ruth Moore	HSLAS	67	Farmer City

Kiner, Howard Dickens	L	32	Geneseo
King, Burton Eldred	Agr	28	Tonica
King, DeWitt Leonard	ME	120	Tonica
King, Edward Herschel	Com	61	Lincoln
King, Esther	LAS		Lake Forest
King, James Carroll	A		Rockford
King, James Xenophon	Agr	26	Richmond, Indiana
King, Vincent Paul	Agr	34	Indianapolis, Indiana
King, Vivian	HSLAS	97	Richmond, Indiana
Kingsley, Donald Henry	Agr		Alden
Kingsley, Wendell Lathrop	Agr	57	Chicago
Kinnear, Leckey McCown	SS	6	Lexington, Virginia
Kinney, Carlotta	SS	8	Galesburg
Kinney, Percy LeRoy	Agr		Galesburg
Kinsey, Alfred Richardson	Agr	63	Centralia
Kinsey, Jack	Agr	56	Mackinaw
Kipp, John George Estill	EE (SS)	76	St. Louis, Missouri
Kirby, Harry Anton	EE (SS)	69	Indianapolis, Indiana
Kircher, Armin Martin	RCE	110	Chicago
Kirchhofer, Emma Richardson	LAS		Kansas City, Missouri
Kirk, Bertha May	LAS	73	Decatur
Kirk, Heagle James	Com	23	Decatur
Kirkpatrick, Harry Louis	HSLAS	66	Des Moines, Iowa
Kirkpatrick, Helen Marie	Mus		Urbana
Kirkpatrick, Mildred	ChE (SS)	111	Pana
Kirkpatrick, Sidney Dale	ChE	30	Urbana
Kirner, Walter Raymond	Mus sp		Chicago
Kirwan, Nora	HSagr	66	Champaign
Kiser, Helen Mynette	SS	6	Champaign
Kitteringham, George William	LAS		Rockford
Kixmiller, Karl William	Agr		Freelandville, Indiana
Klamt, Robert Herman	Com	101	Chicago
Klank, Frances Grace	LAS	100	Champaign
Klein, Carroll Aaron	AB	114	Davenport, Iowa
Klein, George Minnie, A.B., 1914	SS		Urbana
Klein, Gordon	CerE (SS)	39	Urbana
Klein, John Leo	Com	35	Omaha, Nebraska
Klein, Joseph Mathais	Med	28	Pana
Klein, Nancie	LAS	51	Urbana
Kleinan, Emma Adele	LAS	107	Bloomington
Kleinbeck, Augustus Gustave	Ch	24	Litchfield
Klemmedson, Arthur Erick	Agr		Colorado Springs, Colorado
Klemmedson, Gunnar Sigesmund	Agr		Colorado Springs, Colorado
Klenk, Frederick	CE		Philadelphia, Pennsylvania
Klindworth, Mildred Louise	LAS	73	Philo
Kline, Alice Harper	LAS		Huntington, Indiana
Kline, Arthur LaVerne	Agr	33	Chicago
Kling, Carl Lawrence	CerE	37	Dixon
Klingler, Roland John	L	56	Lead, South Dakota
Klink, William Lee	Com	37	Cerro Gordo
Klop, Charles Gorr	ME	108	Streator
Kloppenberg, George Joseph	LAS	26	Springfield
Klotzsche, Bayard Taylor	Agr	24	Urbana
Klotzsche, Bessie May	LAS	33	Urbana
Klotzsche, Esther Eunice	SS	7	Urbana
Klutts, George Madison	Agr	23	Childress, Texas
Knappenberger, Harry Farrar	A	165	Macomb
Knappenberger, John Meridith	Com	62	Kansas City, Missouri
Kneberg, Goldie Minnie, A.B., 1910	LAS		Moline
Kneesha, Mary Jane	HSagr		Niles, Michigan
Knight, Ewart Broughton	Agr	34	Chicago
Knight, Francis Putnam	Agr	22	Oklahoma City, Oklahoma
Knight, Galen Victor	Com		Champaign
Knight, Herbert Alfred	LAS	25	Oak Park
Knight, Mrs. Nellie Dryden	LAS		Wichita, Kansas
Knight, Paul Kenneth	Com (SS)	92	Champaign
Knight, Leonard Leo	SS	4	Port Arthur, Texas
Knobelock, Thomas Adolph	Agr	31	Belleview
Knoche, John Christian	Agr (SS)	71	Onarga
Knodel, Cary Lee	ME	128	Elgin
Knop, Robert Oscar	LAS		Chicago
Knox, Harry Gaylord	LAS	67	West LaFayette, Indiana
Knudsen, Niels Alfred	AE	77	Urbana
Knudson, Harold Epler	Agr		Farmingdale
Kobayashi, Kenichiro	EE		Niigata, Japan
Kober, Edgar Irving	A	35	Waterloo, Iowa
Koch, Eloise	LAS	71	St. Louis, Missouri
Koebele, Cornelius Walter	CE	110	Chicago Heights
Koepeke, Frank Henry Paul	EE		Chicago
Koepeke, Herman Frank	CE	39	Chicago
Kohl, Justin Ferdinand	Com	58	Centralia
Kohl, Rowena Agnes	LAS	26	Centralia
Kohler, Gerald Elmer	LAS		Chatsworth

Kohmann, Edward Frederick, Ph.D. (Yale Univ.) 1915			
Kohn, John Louis	Mus sp	64	Dillon, Kansas
Kolar, George Franklin	Com	37	Elgin
Koll, Henry Michael	MSE	.	Chicago
Kolmer, Albert Conrad	EE	128	Chicago
Kolmer, Otto Peter	Agr		Waterloo
Koo, Shun	Agr	58	Waterloo
Kopelman, Leo Theodore	RCE (SS)	8	Kiang Si, China
Kopf, Frank Alexander	Com	34	Maquoketa, Iowa
Koptik, Bohumil Janes	LAS (SS)	97	Champaign
Koptik, Rose	Agr	69	Cicero
Korth, Frieda Elizabeth	HSLAS		Cicero
Koupal, Agnes Rose	LAS (SS)	111	Trivoli
Koupal, Walter George	HSLAS (SS)	98	Crown Point, Indiana
Kouyoumjian, Garabed Hovaness	EE	110	Crown Point, Indiana
Kraeckmann, Arthur Endress	Agr	103	Egarek, Armenia
Kraeckmann, Walter Ernest Louis	EE		Chicago
Kraeger, Bertha Elizabeth	SS	74	Chicago
Kraft, Adolph	LAS		Pekin
Kraft, August	LAS		Gilmantown
Kraft, Reynold Rudolph	MnE (SS)	40	Gilmantown
Kral, Albert Alva, Jr.	EE		Oak Park
Kramethauer, Irma Theresa	LAS		Chicago
Kranner, Victor Louis	Com		Chicago
Kraske, Herbert John	Che	72	Chicago
Kratz, Elwin Valentine, B.S., 1912, M.S., 1913	AE		Champaign
Kratz, Ethel Gyola, A.B., 1910	Lb		Champaign
Kratzenberg, Edwin John	EE	35	Chicago
Krauel, Philip Leone	ME (SS)	47	Champaign
Kraus, Harry	LAS		Chicago
Krausse, Leo John B.S. (Knox Coll.) 1915	LAS		Champaign
Krebs, Wilbur Edward	L	58	Bellefontaine
Kreider, Paul Gates	LAS	34	Springfield
Kreidler, Chester Jamison	LAS	36	Oak Park
Kreigh, Elie Spencer	ME	108	Springfield
Kreiling, Robert Graham	Che	68	Chicago
Krieg, Amelia	LAS	54	Chicago
Krieger, William Enoch	Com	34	Peoria
Kriegel, Otto	ME	30½	Innsbruck, Austria
Kriewitz, John Gustav	Agr	66	Chicago
Krishna, R	LAS sp		Madras, India
Kritzer, Richard Walker	Com	103	Chicago
Kroeschell, Roy Sittig	ME	49	Winetka
Kroner, Frederick Lewis	LAS		Mahomet
Krueger, Kurt Carl	LAS	31	LaSalle
Krug, Louis Gustave	Che (SS)	90	Chicago
Krull, Donald Carl	LAS		Indianapolis, Indiana
Krumm, Gretchen Emma	LAS		Chicago
Krumstick, Walter Wesley	SS		Nashville
Kueschler, Ernest Charles	Agr		St. Elmo
Kuehn, George Walter	ME	72	Chicago
Kugler, Martin Billmire	Agr	75	Yorkville
Kuhlman, Lloyd	Agr	25	Beardstown
Kull, Karl Robert	Agr		Shelbyville
Kupper, Walter Jacob	Agr	59	Peoria
Kurt, Leo Peter, Jr.	ME	112	Champaign
Kurt, Mary Annetta	HSLAS		Champaign
Kurtzrock, Edward Valentine	LAS	30	Dixon
Kyger, Roy Jay	SS	98	Danville
Lacey, John James	Agr	64	Elwood
Lachman, Josiah Keeler	SS	.	St. Louis, Missouri
Lackey, Kate	SS	127	Lawrenceville
Lacy, Ralph Wilson	Com	14	Knoxville
Ladd, William Stanton	Agr (SS)	99	Taylorville
Ladehoff, Arthur Detlef Henry	AE	37	Clinton
Lafferty, George Gustavus	SS	44½	Knoxville
Lagergren, Gustaf Petrus	A	146	Morgan Park
Laible, Russell James	Agr		Freeport
Laing, Walter A.	Agr	63	River Forest
Lalor, Foster Mitchell	LAS		Franklin Park
Lamb, Hallie Eunice	LAS (SS)	69½	Champaign
Lamb, Helen Marian	LAS		Crawfordsville
Lamb, Howard Earl	LAS	60	Hillsdale, Michigan
Lamb, John, Jr.	Agr	32½	Warden
Lambert, Dana Carlin	Agr		Coatsburg
Lambröff, Gregory Vessileff	EE	46	Madison
Lamkins, Lloyd E.	Agr (SS)	102	Urbana
Lamont, James Walter	ME		Rockford
Lampert, Florian, Jr.	AE	37	Oshkosh, Wisconsin
La Motte, Norman Girdwood	SS		Columbia, South Carolina
Lanan, Guy	Agr	81	Kingston
Lancaster, Allen H.	SS	6½	Ridgefarm
Lancaster, Ruth Ellen	LAS	103½	Maywood

Landon, George	LAS	32	Chicago
Landstrom, Adolph Walter	ChE	73½	Chicago
Landstrom, Roy William	Agr		Chicago
Landt, Gustav Ernest	Agr		Chicago
Lang, Leonard Alvin	Agr		Urbana
Lang, LeRoy, M.S., 1911	Com		Urbana
Langwill, Bertha	SS	8	Rockford
Langwith, Warren LeRoy	ChE		Davenport, Iowa
Lansche, Oral Albert	EE	111	Brighton
Largent, Jess Charles	AE	114	Champaign
Larkin, Willard Ford	ME		Rock Island
Larsen, David Thorsten	LAS	72	Elgin
Larson, Carl Clarence	ChE	32	Mazon
Larson, Irving Nicholas	A	112	LaPorte, Indiana
Larson, John Carl	Com	25	Princeton
Larson, Karl Gottfried	SS	8	Rockford
Larson, Raymond Victor	Agr	97	Henderson, Minnesota
Larson, Walter Nels	MSE	28	Paxton
Lascelles, Robert John	Com	60	Capron
Lassmann, Meta Irma	SS	13	Magnolia
LaTeer, Angie	HSLAS	11	Paxton
Lathrop, Charlton Page	Agr	107	Chicago
Lathrop, John Sherman	Agr		Chicago
Lathrop, William Grant	LAS (SS)	43½	Urbana
Lattner, Ulysses Simpson	ME		Rock Island
Laubinger, Roy Norman	Med	22	Chicago
Lauphit, Tse	Agr (SS)	36½	Shanghai, China
Lauritzen, Marion Marie	LAS	31	Chicago Heights
Lavery, Ruth	Mus sp		Decatur
Lawler, Thomas Joseph	Com	37	Greenfield
Lawless, Mary Jane	LAS	98½	Carthage
Lawnin, Nelson	ME	108	Edwardsville
Lawrence, Roy E.	LAS	33	Urbana
Lawrence, Charles Henry	Agr	35	Woodstock
Lawrence, Edgar Alfred	CE (SS)	106	Chicago
Lawrence, Leland Lamont	LAS		Champaign
Lawrence, Ralph E.	A (SS)	79	Ripon, Wisconsin
Lawrence, Roland Hall	ME	75	Chicago
Laws, Joel William	Agr	95	Donnellson
Lawson, Everett Eugene	Agr	14½	Barry
Lawton, Chauncey Wenzlaff	LAS		Yankton, South Dakota
Lawyer, Joseph Dale	L	56	Tennessee
Lax, Louise Catharine	SS	41	Springfield
Layton, Samuel Everett	Com		Rossville
Leach, Gladys Hodson	Mus		Urbana
Leach, Mac E.	LAS	98	Urbana
Leach, Margaret Fanny	LAS	134	Chicago
Leach, Paul Jackson	Agr	120½	Macomb
Leach, Robert Lincoln	Agr		Rockford
Leander, Elmer Isidor	CE	72	Chesterton, Indiana
Leas, John Andrew	Agr		Decatur
Lease, Alice Clare	SS	6½	Plainville
Catherman, Marian, A.B. (Cornell Univ.) 1907			
Ledgerwood, Leroy William	Lb	55	Pittsburgh, Pennsylvania
Lee, Alfred Chang	AE	115½	Springfield, Missouri
Lee, Arthur	CE	86	Hunon, China
Lee, Carrie Alice	A	36	Hudson, Wisconsin
Lee, Ellena	Mus	50	Champaign
Lee, Fannie	HSAgr		Reynolds
Lee, Ping-Fun	HSLAS	114	Reynolds
Lee, Tao Nan	ME		Canton, China
Lee, Tsz-Sien	RCB	23	Nanking, China
Lee, Wilkie Albert	Agr		Hoyon, China
Leedle, Jessie Miriam	LAS		Earlville
Leeming, Tom	LAS	29	West Chicago
Leete, Lorraine	LAS	22	Chicago
Leete, Marion Elaine	LAS	6	Chicago
Lee-Toma, Esther En Moi	LAS	24	Honolulu, Hawaii
Lee-Toma, En Fon	LAS		Honolulu, Hawaii
Leggett, Charles Martin	Com		Chicago Heights
Leggett, Wilkie Wright	HSLAS		McComb, Mississippi
Leggitt, Frank	Agr (SS)	82	Urbana
Leggitt, Fred William	Agr	63	Urbana
Legner, Roger Hopkins	Com		Chicago
Lehman, Lewis Harry	CE	76	Mattoon
Lehmann, Ellery Edmund	Agr	29	Altamont
Leibl, Roy Walter	A	107	Des Moines, Iowa
Leichsenring, Jane Marie	HSLAS		Winnetka
Leighty, Wayne Snyder	Agr	103	Billett
Leist, Claude	LAS	24	Paris
Leisure, Everett Robertson	LAS	22	Berkeley, California
Leitzbach, Elizabeth	CE	105	Fairmount
LeKander, Roy Edward	SS	96	West Chicago
Lemmon, Edgar Guy	ChE		Roodhouse
Lemp, John Frederick		83	Alton

Lendman, Alfred Nohe	EE	72	Sterling
Lenhart, Norman Joseph	Com	100	Mattoon
Lenton, Robert Edgar	LAS		Gloucester, New Jersey
Lentz, Clarence Alonzo	LAS	97½	Anna
Lenz, Andrew Henry	EE	107	Quincy
Lenz, Charles Albert	LAS	26	Gilman
Lenzen, Aloysius Francis	LAS	69	Peru
Lenzing, Chester William	LAS	105	Chicago
Leonard, Frank Bonner, Jr.	L	44	Metropolis
Lerch, Edward	AE	72½	Rock Island
Leslie, Madge Campbell	LAS	62	Pittsfield
Leslie, Myra Frances	Mus	57	Urbana
Lett, Hamlet Harrison	Agr	33	Washington, Indiana
Leuch, Mrs. Francis	Mus sp		Champaign
Levey, Harold Alvin, B.E.	SS		New Orleans, Louisiana
Levinson, Martin	AE	68	Chicago
Levy, Beatrice Esther	LAS		Streator
Lewin, Fenton	Agr sp		Kankakee
Lewis, Arthur Warfield	Agr	31	Harrisburg
Lewis, John Taylor	AE	73	Rockford
Lewis, Louise Madolin	SS	29	Champaign
Lewis, William Henry	SS	48	Granite City
Lewitan, Leo	ME		Chicago
Li, Szu Kuang	Com (SS)	62½	Anking, China
Libman, Anna	LAS	35	Chicago
Libman, Earl Emanuel	CerE	107	Chicago
Libman, Rose Eunice	LAS		Chicago
Lichtenberger, Raleigh	SS		Decatur
Liedel, Russell Brooke	L	28	Springfield
Liggett, Irene Lillian	LAS	98	Camp Point
Liggett, Ruth Elizabeth	LAS		Camp Point
Lighthbody, Howard D.	SS	12½	Glasford
Lighter, Eugene	SS		Rolfe, Iowa
Lightner, Levi Luther	Agr		McClure
Like, Ralph Martin	ME	4	Davenport, Iowa
de Lima, Marcello Francesco	CE (SS)	122	S. Paulo, Brazil
Lin, Thian-Kitt	Com (SS)	72½	Canton, China
Lindahl, Florence Elnora	LAS		Wayne
Lindberg, Albin Ednar	ME		Princeton, Michigan
Lindeberg, George Leonard	A	67	Chicago
Linder, Grace	SS		Charleston
Linder, Isham Doyle	Med		Carrollton
Linder, Leila	SS	4	Patterson
Linder, Mary Sefton	LAS	49½	Charleston
Linder, Sven Cyril	CerE	97	Chicago
Linderroth, Samuel Joseph	AE	72½	Chicago
Lindholm, Ida Helen	SS	7	Elgin
Lindholm, Karin Josephine	LAS (SS)		Elgin
Lindsay, Horace Willard	EE	101	Rockford
Lindsey, Adrian Herve	Agr		Bryan, Ohio
Lindsey, Beatrice	LAS	89	Emporia, Kansas
Lindsey, John Roger	Agr	68	Urbana
Lindsey, Leon Mason	ME	69	Onarga
Lindsey, Ralph Elder	AE	59½	Bryan, Ohio
Lindstrom, Stanley Edwin	A	80	Richmond, Indiana
Linendoll, Harry Alexander	ChE		Chicago
Link, Rue Showalter	Agr		Paris
Linnard, Elmer W.	Agr (SS)	78	Peotone
Linnell, Carrie Edna	LAS (SS)	97	Kellys, North Dakota
Linneen, Henry Wilson	ME	31	Lake Bluff
Linsley, Clyde Maurice	Agr	122½	Fairfield
Little, Adalbert Dudley	AE	70	Genoa
Little, Charles Reeves	Com	99	Duluth, Minnesota
Little, Ethel Esther	LAS	90	Champaign
Liu, Nai Yu	Com	32	Foochow, China
Lively, Carlos Alcium	LAS	32	Oblong
Livesay, Ruth Flagg	LAS	99	East St. Louis
Livingston, Albert Keith	Com	29	Rock Island
Livingston, Alfred, Jr.	LAS		Champaign
Llewellyn, Harry Corson	Agr		LaGrange
Llewellyn, Marjorie Kauffman	HS Agr		LaGrange
Lloyd, Sergius Hopkins	Agr		Genoa
Locke, George Ferguson	Agr	26	LaSalle
Lockett, Lela	SS	31	Pekin
Lockhart, Harold Leo	ME		Owensville, Indiana
Lockwood, Isabel Kathryn	LAS		Chicago
Logan, Frank Allyn	Com	64	Paris
Logsdon, Joseph Ezra, Jr.	Agr	75	Shawneetown
Lohmann, Lewis Edward	LAS	31	Pekin
Lohr, Louis Warren, A.B., 1913	SS		Pana
Long, Jesse Richard	LAS		Sumner Hill
Long, John Oras	LAS	106	Watseka
Long, Ruth Ida	LAS	33	Watseka
Loomis, Clayton Benjamin	Agr	64	Chicago
Loomis, Helen Alice	SS		Chicago
Lotz, Harold Benjamin	AE	111½	Madison, Indiana

Loughery, Harold Barker	<i>Med</i>		Palestine
Louret, Francis	<i>Agr</i>	72	<i>Waldo, Wisconsin</i>
Love, Beryl Franklin	<i>LAS</i>	31	Dancille
Love, Clifford Sharon	<i>Agr</i>	100	Sidney
Love, Harry Halme	<i>LAS</i>	31	Newton
Love, Martha Harriett	<i>LAS</i>	30	Dancille
Love, Mary Elizabeth	<i>LAS</i>	115	Urbana
Lovell, Clarence B.	<i>ChE</i>	15	Libertyville
Lovell, M. McDonald	<i>A</i>	74	Chicago
Lovett, Pearl	<i>SS</i>	8	Urbana
Lovewell, Gladys	<i>LAS</i>	27	Chicago
Lowe, Albert Stafford, Jr.	<i>ME</i>		Shawncetown
Lowe, Cyrus Ching Chung	<i>Com</i>		Tien Tsin, China
Lowe, Rollin Clifford	<i>Com</i>		Evansville, Indiana
Lowe, Wayne Marsh	<i>LAS</i>	17	Chicago
Lowery, Thomas Edwin	<i>Agr</i>		Springfield
Lowman, Charles Elliott	<i>SS</i>	109	Lanark
Lowrence, Roy	<i>LAS</i>	33	Robinson
Lowry, Bessie	<i>LAS</i>	62	Lead, South Dakota
Lu, Chi Tsing	<i>MnE (SS)</i>	112	Kiangsi, China
Lu, Ching Kui	<i>ME</i>		Mukden, Fengsien, China
Lubelsky, Harry Walter	<i>EE</i>		Chicago
Lubelsky, Sam	<i>LAS</i>		Chicago
Lucy, Bennie Hebron	<i>Agr</i>	13	Helena, Arkansas
Ludlow, Helen	<i>LAS</i>	33	Parson
Ludvik, Benjamin Edward	<i>LAS</i>	100	Chicago
Ludwig, Ethel Lenore	<i>HSLAS</i>	60	St. Louis
Ludwig, Lester John	<i>Com</i>	102	Ottawa
Lueder, Herman Harrison	<i>AE</i>	108	Cherokee, Iowa
Lueder, Roy Moore	<i>AE</i>	73	Cherokee, Iowa
Lui, Sik Chew	<i>Med</i>		Honolulu, Hawaii
Lumley, Arlene	<i>LAS</i>		Urbana
Lumley, Harold McLean	<i>Agr</i>	102	Urbana
Lumley, Leslie Robert	<i>Agr</i>	101	Urbana
Lummis, Irwin Lytle	<i>ME</i>	76	Quincy
Lummis, Merle Francis	<i>LAS</i>	95	Quincy
Lundberg, Bruce Gurler	<i>Agr</i>	52	DeKalb
Lundberg, Henry Gurler	<i>Agr</i>	32	DeKalb
Lunde, George Richard	<i>Agr (SS)</i>	111	Elgin
Lundeen, Curt Carl	<i>AE</i>	73	Rock Island
Lundgren, Andrew Victor Theodore	<i>AE</i>	131	Red Oak, Iowa
Lundgren, Arnold Alinder	<i>CE</i>		Rockford
Lundgren, Floyd Edward	<i>EE</i>	35	Lostant
Lungren, Arthur Nathaniel	<i>ME (SS)</i>	88	Aurora
Lungren, Edgar Emmanuel	<i>SS</i>	137	Aurora
Lurie, Sidney Joseph	<i>EE</i>	80	Chicago
Lusk, Genevieve Aron	<i>HSagr</i>	66	Quincy
Lutes, Gifford W.	<i>A</i>	78	Lutesville, Missouri
Luther, Elsie Emilie	<i>SS</i>	4	Champaign
Luther, Wilhelmina Caroline	<i>LAS</i>		Champaign
Luttrell, Arno Atlee	<i>Agr sp</i>		Waverly
Lyle, Mary Stewart	<i>SS</i>	9	Shelbyville
Lyman, Mary Agnes Adelaide	<i>LAS (SS)</i>	31	Champaign
Lyman, Richard Dana	<i>Agr</i>	194	Chicago
Lynch, Margaret	<i>LAS (SS)</i>	34	Urbana
Lynch, Virginia Esther	<i>LAS</i>	50	Rockford
Lynch, Chester Vernon	<i>EE</i>		Henderson, Kentucky
Lyon, Carlos Elmendorph	<i>Com</i>		Decatur
Lyon, John Boyd	<i>CerE</i>	104	La Harpe
Lyon, William Ranft	<i>LAS</i>	32	Riverside
Lyons, Carrie Fay	<i>HSLAS</i>	101	Urbana
Lyons, Hazel Dell	<i>LAS (SS)</i>	29	Champaign
Lyons, Hazel Sibyl	<i>LAS (SS)</i>	108	Urbana
Lyons, Oscar Ivan	<i>ME</i>	39	Hooperston
McAdams, Fred Andrew	<i>Agr</i>		Kansas
McAdams, May Elizabeth	<i>Agr (SS)</i>	97	Chicago
McAfee, Leo Gay	<i>Com</i>	108	Springfield
McAllister, Ivorine	<i>LAS (SS)</i>	21	St. Louis, Missouri
McAllister, Marietta Jane	<i>SS</i>	8	Pontiac
McBane, Wayne Willard	<i>EE</i>		Metropolis
McBride, Howard Inman	<i>ME</i>		Chicago
McCabe, C. L., A.B., 1914	<i>SS</i>		Carthage
McCabe, Marie Belle	<i>SS</i>	7	Pontiac
McCaffrey, Leslie Bernard	<i>Com</i>		Highland Park
McCall, Alice Ruth	<i>LAS</i>	31	Kenosha, Wisconsin
McCallister, Isaac Trost	<i>ME</i>		Anchor
McCallister, Roy Ivan	<i>Com</i>		Carmi
McCannon, Martha	<i>LAS</i>	31	Urbana
McCandiish, Fred Raymond	<i>Agr</i>	64	Toledo
McCarroll, James Shipp	<i>Agr</i>	29	Owensboro, Kentucky
McCartney, Ward Bishop	<i>Agr</i>	33	Elkhart, Indiana
McCaskill, Hady Anson	<i>Agr</i>		Taylorville
McCaskill, Lyman Clauson	<i>Agr</i>	32	Taylorville
McCaskrin, George W.	<i>SS</i>		Rantoul
McCente, James	<i>SS</i>		Wellington
McClellan, Kenneth Butler	<i>Agr</i>	74	Chicago

McClellan, Russell Clyde	EE		Urbana
McClelland, Miles John	AE	108½	Boise, Idaho
McCloud, James Forsyth	Com	70	Sheldon
McCluer, Donald	Agr sp		Jackson, Mississippi
McClure, Adelle Elizabeth	Mus	48	Atlanta
McClure, Winifred Leo	HSLAS	116	Chrisman
McClurg, Lola DeWitt, A.B., 1910	SS		Urbana
McConn, Prudence Pratt	SS		Urbana
McConnel, Marian	HSLAS	32	Danville
McConnell, Marvin Greer	LAS	45	Chicago
McCord, Fitch Landis	Agr	21	Paris
McCord, Howard Orestes	Com		Paris
McCormack, Joseph Hume	ChE (SS)	111	LaSalle
McCormack, Thomas Hume	CerE	33	LaSalle
McCormick, Charles Parnell	Com		Decatur
McCormick, Christie Frank	SS	6½	Alva, Oklahoma
McCoy, Alva Elisha	Agr (SS)	103	Altamont
McCoy, Homer Walter	SS	77	Mt. Sterling
McCulloch, Harry Weber, A.B., 1915	Com	99	Milford
McCracken, Wendell Kemp	LAS		Paxton
McCrory, Hazel Florence	HSLAS	77	Oklmulgee, Oklahoma
McCullough, Helen E	LAS	31	Urbana
McCullough, Mary Elizabeth	AB	120½	Urbana
McCumber, Charles William	Med		Chicago
McDaniel, Homer Wesley	Med	61	Mechanicsburg
McDermott, Raymond Adam	HSLAS		Batavia
McDonald, Georgia Helen	SS	12	Lerna
McDonald, Grace	ME		Marion
McDonald, Joseph Nelson	ME		Chicago
McDonough, Joseph	Com		Urbana
McDougal, Grace Almira	LAS	23	Humbolt
McDougal, Helen Alice	LAS		Cairo
McDowell, Robert E	Agr (SS)	141	Urbana
MacDowell, Sidney Monroe	ME	65	Addison, New York
McEldowney, Roy	ME	33	Chicago
McElheney, Fred Wayne	ChE		Vandalia
McElhiney, Ruth	LAS	31	Kenney
McElroy, Mildred Cherington, A.B. (Ohio Wesleyan) 1914	Lb	33	Delaware, Ohio
MacElvain, Ford Harsch	AE		Lawrenceburg, Indiana
McElveen, William Thomas, Jr.	Com	99	Evanston
McEvers, Ernest	EE	35	Montezuma
McEvoy, Thomas Treston	Agr	64	Chicago
McFall, Dumas Miller	L		Mattoon
McFarland, Etta Clara	SS	6½	Hoopes-ton
McFerson, William H	AE	89½	Boulder, Colorado
McGaughey, Guy Ennis	L		Lawrenceville
McGee, Thomas Clarence	LAS	5	East St. Louis
McGehee, Wilbur	Agr		Urbana
McGill, Webster David	EE		Watseka
MacGillivray, Malcolm Edwards	LAS	30	Urbana
*McGowan, Thomas Fenton	L	32	Decatur
McGrath, Floyd Lawrence	Med	53	Savanna
McGrath, Wilson Thomas	Agr (SS)	28	Chicago
McGraw, Katherine Cecilia	Com		Champaign
McGregor, John Lancaster	ME	39	Chicago
MacGregor, Robert Donald	Agr		Chicago
McGrew, Wallace Milton	AE		Long Beach, California
McGuire, Ralph	Agr		Chicago
MacInnes, Frances Jean	Agr	101	Urbana
McIntire, Elliott Charles	Com	5	Aurora
McIntire, Joseph Homer	Agr		Newman
McIntire, Mary Minerva	SS		Urbana
McKay, Ernest Gladstone	Agr		Evanston
MacKchnie, Harry Woodington	LAS	101	Brooklyn, New York
McKee, Mary Annette	HSLAS	24	Kankakee
McKeever, Robert Emmett	EE	35	Jackson, Nebraska
McKenna, Walter William	Com		Brooklyn, New York
McKenney, Hellen	Mus		Dixon
McKennon, Margaret	SS		Georgetown, Texas
McKeon, Joseph Moore	MSE	128	Buffalo, New York
McKim, Lawrence John	LAS		St. Louis, Missouri
McKinnell, Isabel Georgia	LAS (SS)	64½	Beardstown
McKinney, Norman	Agr	67	Chicago
McKnight, Clark Wilson	Com		Mason City
McKown, Russell Leamer	Ag	71	Davenport
McLaughlin, George Southwell	EE		Pocatello, Idaho
McLaughlin, James Robert	SS	½	Aledo
McLaughlin, Walter Wylie	Agr	60½	Carter
McLaughly, DeOrmond	SS		New Wilmington, Pa.
McLee, Edward Brown	AE	37	Rockford
McMahan, Elsie Margaret	SS	39	Jerseyville

\*Deceased, December 22, 1915

McMillan, John Charles	SS	12	Alcedo
MacMillan, Lawrence Claude	EE	92	Bridgeport
MacMillan, Lloyd Allen	EE	22	Grayslake
McMurray, Fannie Marie	LAS		Davenport
McNally, John Leo	LAS	111½	Pueblo, Colorado
McNamara, James Leslie	LAS	21	Rock Island
McNaughton, Clayton Archibald	CE		Urbana
McNish, David Thornley	Agr	28	North Crystal Lake
McNulta, Scott	Com	69	Decatur
McNutt, Wilma Lea	LAS		Lacon
McRobie, Douglas	LAS	77	Montclair, New Jersey
McTaggart, Clarence Glenn	SS	6½	Pana
McWilliams, Marie Lindsey	Mus	58	Urbana
McWilliams, Mark Dee	SS	8	Abingdon
Macauley, John Blair	ME	34	Evanston
Macdonald, Alexander Paul, Jr.	Agr	106	Morris
Mach, George Robert	Agr		Brookfield
Machovee, Edward Paul	ME (SS)	50	Kansas City, Missouri
Mackey, James Corbett	Agr		Rockford
Mackie, Elton Thomas	Agr	62½	New Orleans, Louisiana
Mackin, Paul	AE		Omaha, Nebraska
Macomber, Frank Bartlett	Com (SS)	61	Oak Park
Madden, Grace Erminie	LAS (SS)	88½	Jacksonville
Madden, Helen Louise, B.Mus., 1915	LAS (SS)	189½	Jacksonville
Madden, Katherine Josephine	SS	33	Champaign
Maddock, Earl Chester	Agr	28	St. Joseph
Maddock, Rosa Goodeve	SS	5	Chicago
Maddox, Lloyd J	Agr		Palestine
Madison, Mary Adele	HS Agr		Urbana
Madsen, Olav	AB	67	Litchfield, Minnesota
Magers, Elizabeth Julia	HSLAS		Marquette, Michigan
Maguire, Mary Josephine	SS	11	Alton
Mah, Wing Ngui	LAS sp (SS)	76	Canton, China
Maher, Chauncey Carter	Med	32	Payson
Mahn, George Willis	AE	76	Urbana
Mahood, Harry Samuel	CE	106	Mt. Carroll
Main, George Chrysop	Agr		Barry
Main, Howard H	CE		Rockford
Maitra, Krishna Mohan	RME	64	Benares City, India
Makutchan, Clyde	CE	66	Urbana
Malapert, Ernest Louis	Com		Osage City, Kansas
Malgani, Abdulah	ME (SS)	30	Punjab, India
Mallers, John Bernard	ME		Chicago
Mallett, Norman James	Cer E	63	Altoona, Pennsylvania
Mallory, Francis Bolton	LAS		Batavia
Mallory, Richard Henderson	Agr	34	Batavia
Mallstrom, Roe Eugene	Com	34	Harvey
Maloit, Pauline Germaine	LAS	96	Elmhurst
Malsbary, Grace Estella	HSLAS (SS)	31	Champaign
Mandeville, Merten Joseph	Agr	13	Terre Haute
Mangan, Ralph Kenneth	ME		Chicago
Manguson, Maude Beatrice	Mus		Osclo
Manley, John Charles	EE		Chicago
Manley, Marion (Miss)	A	92	Junction, City, Kansas
Manley, Myra Francis	LAS	27	Champaign
Manley, Otis Rowe	Com	71	Harvard
Mann, Marjorie Dorothea	HSLAS	66	Elgin
Mannix, Pauline Marie	SS	35	Champaign
Manny, Theodore Bergen	Agr		Chicago
Mansfield, Charles Fredric, Jr.	Agr (SS)	101	Monticello
Mapel, Frances Pauline	HS Agr	64	Fairbury
Mapes, George Chandler	ME	85	Savannah, Georgia
Marblestone, Rose	SS	55	Chicago
Marbold, Pauline	LAS	72	Greenview
Marcott, Margaret	LAS		Decatur
Marklin, Frederick William	EE		Chicago
Marks, Anna Edith	LAS		Dixon
Marks, Hazel Frances	LAS	99	Plymouth, Indiana
Markson, Harry	ME	72	Chicago
Markwardt, Henry William	RCE	73	Elgin
Marlowe, Wilma	SS	8	Pontiac
Maroee, May Luella	SS	6	Rushville
Marquardt, Willard Horace	SS	31	Dayton, Ohio
Marquiss, Ralph Edwin	Agr		Monticello
Marsh, Carrie Ethel	LAS sp	15½	St. Joseph
Marsh, J. S.	Agr	44	Saundermin
Marshall, Elsmere John	LAS		Washington, D. C.
Marshall, Glenn Wylie	MnE	25	Rutland
Marshall, Robert Denkmann	Com	20	Rock Island
Marshall, Ralph William	SS	133	West Chicago
Marshall, Thomas Holland	LAS	32	Fairfield
Martsteller, Dudley Leonard	Com		Roanoke, Virginia
Martell, Edmund Anthony	EE	35	Murphysboro
Martens, Margaret Louise	HSLAS	32	Anchor

Martin, Ada North	<i>Mus sp</i>	55	Madison, Wisconsin
Martin, Albert Thaddeus	<i>Agr</i>	8	Newton, Illinois
Martin, Charles Blake	<i>Com</i>		Mt. Carmel
Martin, Daisy Moore	<i>LAS</i>		Champaign
Martin, Dorothy	<i>HSLAS</i>		Logansport, Indiana
Martin, Emmet Giles	<i>A</i>	56	Los Angeles, California
Martin, Fay Waldo	<i>Com</i>	99	Mt. Carmel
Martin, Frank Alhert	<i>ChE</i>	24	Chicago
Martin, Isaac Roy	<i>SS</i>		Liberty, Missouri
Martin, Milford Maurice	<i>LAS</i>	12	Murphysboro
Martin, Walter Bunn	<i>SS</i>	61	Peoria
Martin, Wilhur Francis	<i>CerE</i>		Homer
Martin, William Holmes	<i>SS</i>	131	Greenville, Ohio
Martin, William Hugh	<i>LAS</i>	32	Beech Ridge
Martin, William Troy	<i>Agr</i>	16	Climax, Arkansas
Marx, Arthur William Kuhs	<i>A</i>	44	St. Louis, Missouri
Marx, George Bernard	<i>Com</i>	76	Aurora
Maryan, Harry Isidor	<i>LAS</i>		Chicago
Mason, Arthur Helgeson	<i>Com</i>	97	Urbana
Mason, Jean Fraser	<i>LAS</i>	30	LaSalle
Mason, Lee	<i>Agr</i>		New Richmond, Indiana
Mason, Ross Seguine	<i>ME</i>	105	Buda
Massey, Henry Laurens	<i>Com</i>		Little Rock, Arkansas
Masson, Lewis William	<i>Agr</i>	31	Buffalo, New York
Mateer, Howard Wilson	<i>EE</i>	109	Rutland
Mather, Asa Frisbie	<i>LAS</i>	34	Plainfield
Mathews, William B	<i>LAS (SS)</i>	112	Yates City
Mathews, William Rankin	<i>Com</i>	78	Lexington, Kentucky
Matson, Harry Emil	<i>ME</i>	39	Chicago
Matthews, Albert Otto	<i>LAS</i>	35	Washington, D. C.
Mattingly, Leo Joseph	<i>AE</i>	113	Champaign
Mattingly, William Brashear, B.S., 1914	<i>SS</i>		Cairo
Matuszewig, Veronica Catherine	<i>LAS</i>	29	Minonk
Maury, Daniel Evans	<i>Com</i>	34	Rossville
Maury, Walter Carter	<i>Agr</i>		Rossville
Mautner, Erwin William	<i>ChE</i>	40	Chicago
Mautz, William Plaford	<i>Agr</i>		St. Elmo
Mavor, Hugh Nelson	<i>AE</i>	111	LaGrange
Maxwell, Leslie Blaine	<i>Com</i>	70	Paris
Maxwell, Loyal C	<i>ChE</i>	70	Flat Rock
Maxwell, McKinley Vern	<i>Agr</i>		Flat Rock
Maxwell, Raymond Jones	<i>Com</i>	34	Paris
May, Clifford Blaine	<i>Agr</i>	83	Kirkland
Mayerstein, Ralph Maurice	<i>Com</i>	36	Lafayette, Indiana
Maynard, Donald Edmund	<i>Med</i>	52	Chicago
Maynard, Wesley Kenneth	<i>Med</i>		Chicago
Mayo, Thomas Bolton	<i>LAS</i>	34	Alton
Mead, Leo Shallenburger	<i>Com</i>	61	Grand Island
Mealiff, Arthur Edward	<i>Agr</i>	100	Chicago
Meals, Robert Woodruff	<i>Agr</i>	52	Peoria
Means, Walker Wilson	<i>CE (SS)</i>	5	Urbana
Mechin, Rene Jean	<i>MnE</i>		St. Louis, Missouri
Medendorp, Titus Arend	<i>ME</i>	35	Chicago
Meek, Frederick James	<i>EE</i>		Marissa
Meek, Harold Tecumseh	<i>LAS (SS)</i>	41	Peoria
Meek, James Perry	<i>Agr</i>		Peoria
Meek, Wilbur	<i>Com</i>	87	Carrollton
Mehaffey, Helen Irene	<i>HSLAS</i>		Chicago
Meier, Harold Irving	<i>LAS</i>		Marissa
Meisenhelder, W Benjamin	<i>LAS</i>	77	Palestine
Melin, Charles Raymond	<i>Agr</i>	33	Chicago
Melin, Ralph Norton	<i>Agr</i>		Chicago
Mellick, Edwin Clinton	<i>SS</i>	14	Ludell, Kansas
Memmen, Dean Ellsworth	<i>Agr</i>	30	Minonk
Mendel, Ferdinand Albert	<i>ME</i>	31	Chicago
Meneley, Olive Myrtle	<i>Mus</i>	101	Champaign
Mensenkamp, Louis Edward	<i>LAS</i>	101	Freeport
Menzel, Carl Alfred	<i>ME</i>		Chicago
Mercer, Charles Franklin	<i>CE</i>	39	Kansas City, Missouri
Mercer, Ralph Dilworth	<i>Agr</i>	34	Vermont
Meriwether, Shannon	<i>A</i>	51	Sedalia, Missouri
Merker, David Felmley	<i>Agr</i>	33	Bellefontaine
Merrills, Virginia	<i>LAS</i>		Bellefontaine
Merritt, Cora Leone	<i>HSLAS</i>	73	St. Louis, Missouri
Merryman, Mary Elinor	<i>SS</i>	7	Carbondale
Metzger, LeRoy Paul	<i>Com</i>	71	Cairo
Metzler, Arthur Maurice	<i>Com</i>	105	Champaign
Metzler, John Newman	<i>SS</i>	8	White Hall
Metzler, Ralph Oliver	<i>Com</i>		Champaign
Mewhirter, Jannett Lou	<i>HSagr</i>	31	Yorkville
Meyer, Alfred Werner	<i>Ch</i>	80	Chicago
Meyer, Alvin Frederick	<i>Agr</i>	54	Deerfield

## University of Illinois

Meyer, Antoine Ferdinand Ernst Henry	<i>Agr</i>		<i>Aux Cayes, Haiti, West Indies</i>
Meyer, Carl Theodore	<i>A</i>	102	<i>Springfield</i>
Meyer, Frank Wellington	<i>Com</i>		<i>Beardstown</i>
Meyer, Howard Maurice	<i>RCE</i>		<i>Ontario, Canada</i>
Meyer, Husted McCullough	<i>Com</i>		<i>Glencoe</i>
Meyer, Pauline Augusta	<i>SS</i>	2	<i>Lawrence, Massachusetts</i>
Meyer, Raymond Edward	<i>Com</i>	34	<i>Chicago</i>
Meyer, Wilber Henry	<i>Agr</i>		<i>Beardstown</i>
Meyers, Charlotte	<i>LAS</i>		<i>Belvidere</i>
Meyers, Marguerite	<i>LAS</i>		<i>Belvidere</i>
Meyers, Mildred Irene	<i>LAS</i>	31	<i>Pekin</i>
Miao, Eu Choa	<i>SS</i>	58	<i>Kiangsu, China</i>
Michael, Richard William	<i>Agr</i>		<i>Champaign</i>
Michels, Walter	<i>LAS</i>		<i>Chicago</i>
Middleton, Edith Anna	<i>HSLAS</i>	74	<i>Chicago</i>
Middleton, Julian Gilbert	<i>AE</i>	37	<i>Pomona, California</i>
Midkiff, John Howard	<i>Agr</i>	74	<i>Stonington</i>
Miebach, Mary Theresa	<i>Mus</i>		<i>Champaign</i>
Miles, Luther Fiske	<i>Agr</i>	28½	<i>Urbana</i>
Miles, Thomas Boyd	<i>Agr</i>	44	<i>Lewistown</i>
Millar, Oscar Melvin	<i>Agr</i>		<i>Mattoon</i>
Millar, Russell Ward	<i>Ch</i>	109	<i>Mattoon</i>
Miller, Anna May	<i>LAS</i>		<i>Decatur</i>
Miller, Archie Roscoe	<i>EE</i>	35	<i>Mahomet</i>
Miller, Bertie Ethel	<i>SS</i>	7½	<i>Westfield</i>
Miller, Cassie Boggs, B.L., 1892	<i>SS</i>		<i>Urbana</i>
Miller, Clifton Warner	<i>CE</i>		<i>Cairo</i>
Miller, Cuyler Clark, Jr.	<i>Agr</i>	27	<i>Carlinville</i>
Miller, Daniel Edwin	<i>ME</i>	118	<i>Quincy</i>
Miller, Dean Albert	<i>CE</i>	39	<i>Canton</i>
Miller, Elliott Strong	<i>Com</i>	96	<i>Oak Park</i>
Miller, Erwin Franklin	<i>A</i>	113½	<i>Onaga, Kansas</i>
Miller, Francis H	<i>Com</i>	34	<i>Chicago</i>
Miller, Fred Raney	<i>LAS</i>	98	<i>Gilman</i>
Miller, Harold Thomas	<i>ChE</i>	32	<i>Burlington, Iowa</i>
Miller, Joseph Gilman	<i>Com</i>		<i>Glencoe</i>
Miller, Joseph Harrison	<i>CE</i>	110	<i>Red Oak</i>
Miller, Kathleen Winifred	<i>LAS</i>	20	<i>Princeville</i>
Miller, Kenneth Adlai	<i>A</i>	64	<i>Bloomington</i>
Miller, Kenneth William	<i>LAS</i>		<i>Decatur</i>
Miller, Max F	<i>Com</i>	17	<i>Waterloo, Iowa</i>
Miller, Mabel O	<i>SS</i>		<i>La Place</i>
Miller, Robert McClain	<i>CE</i>	72	<i>Cairo</i>
Miller, Stanford Curtis	<i>LAS</i>		<i>Casey</i>
Miller, Virginia Agnes	<i>LAS</i>		<i>Galva</i>
Milleson, Cecil Clyde	<i>SS</i>	74	<i>East St. Louis</i>
Millikan, Carl E	<i>MnE</i>	29	<i>Chicago</i>
Millin, Richard Bardwell	<i>Agr</i>	108	<i>Ridgway, Pennsylvania</i>
Millman, Harry Abram	<i>Com</i>	31	<i>Chicago</i>
Mills, John Turner	<i>Agr</i>	108	<i>McNabb</i>
Mills, Lois Gertrude	<i>LAS</i>	36	<i>San Luis Obispo, California</i>
Mills, Niles Easton	<i>Agr</i>	9½	<i>San Luis Obispo, California</i>
Millsom, Walter Clair	<i>CerE</i>	95	<i>Macomb</i>
Milne, Edward Lawrence	<i>SS</i>		<i>Champaign</i>
Miner, Helen Nellora	<i>Med</i>	30	<i>Adair</i>
Miner, Henry	<i>Agr</i>	99½	<i>Waverly</i>
Miner, Lester Ward, B.S., 1914	<i>Com</i>		<i>Shelbyville</i>
Mink, Dwight	<i>SS</i>	72	<i>Galva</i>
Minkema, William Herman	<i>ME</i>	75	<i>Chicago</i>
Mininis, Lemuel Ernest	<i>Agr</i>	102	<i>Chicago</i>
Mischler, Clara Helen	<i>SS</i>	6½	<i>Springfield</i>
Mischler, Lillian	<i>SS</i>	12½	<i>Springfield</i>
Missimore, Russell Clark	<i>SS</i>	2	<i>Hillsboro</i>
Mitchell, Dale Ira	<i>Agr</i>		<i>Talbot, Indiana</i>
Mitchell, Donald Richards	<i>Agr</i>	34	<i>Chicago</i>
Mitchell, Elsie Louise	<i>HSAGr</i>	116	<i>Havana</i>
Mitchell, Forster Isaac	<i>LAS</i>		<i>Havana</i>
Mitchell, George William	<i>Agr</i>	69	<i>Marion</i>
Mitchell, Grace	<i>LAS</i>	100	<i>Georgetown, Ohio</i>
Mitchell, Leonard Osgood	<i>Agr</i>	71	<i>Chicago</i>
Mitchell, Robert Andrew	<i>SS</i>	6½	<i>Winchester, Kansas</i>
Mitchell, Robert Stephens	<i>EE</i>	37	<i>St. Louis, Missouri</i>
Mix, John Raymond	<i>Med</i>		<i>Beardstown</i>
Moberley, Edwin Stuart	<i>Agr</i>	30½	<i>Tallulah, Louisiana</i>
Moburg, Ernest Ruben	<i>Agr</i>	26	<i>Kirkwood</i>
Model, Charles	<i>SS</i>	5	<i>Brooklyn</i>
Moffet, Donald Romain	<i>L</i>	28	<i>Paxton</i>
Moffett, Thomas Oscar	<i>EE</i>	72	<i>Oakland</i>
Mohlman, Harry	<i>Agr</i>	98	<i>Urbana</i>
Mohr, Alba Agnes	<i>SS</i>	119	<i>Watseka</i>
Mohr, Edward Emil	<i>ME</i>	30	<i>Chicago</i>
Moll, Paul	<i>Com</i>	21	<i>St. Louis, Missouri</i>
Molyneaux, Juanita Qunita	<i>LAS (SS)</i>	63	<i>Woodland</i>
Moncrieff, James Weir	<i>CerE</i>	37	<i>Otsego, Michigan</i>

Mongreig, Louis Morgan	<i>Agr</i>	32	Cicero
Monohon, Ila E	<i>HSLAS</i>	74	Greenup
Monroe, George Stuart	<i>Ch</i>	68	Hillsboro
Montgomery, Thaddeus Lemert	<i>Med</i>	43	Dexter, Missouri
Moo, Jen Yin	<i>AE</i>	115	Honolulu, Oahu
Moon, Paul Cyrus	<i>SS</i>	73	DeQueen, Arkansas
Mooney, Paul	<i>LAS</i>	43	Chicago
Mooney, Raymond	<i>EE</i>	19	Chicago
Moor, Hubert Watson	<i>Che</i>	33	Champaign
Moore, Albert Brophy	<i>LAS</i>	33	Aurora
Moore, Allen Ray	<i>LAS</i>	43	Urbana
Moore, Allie Adelaide	<i>LAS</i>	19	Urbana
Moore, Charles Bachman	<i>LAS</i>	33	Knoxville, Tennessee
Moore, Edward Wilson	<i>Med</i>	33	Murphysboro
Moore, Elbert Lansford	<i>SS</i>	33	Chicago
Moore, Eva Eleanor	<i>HSLAS</i>	33	Mattoon
Moore, Florence	<i>LAS</i>	33	Allerton
Moore, George Wilkinson	<i>Agr</i>	31	Macomb
Moore, Hiram Wodrich	<i>LAS</i>	31	Chicago
Moore, Irene Holbrook	<i>SS</i>	121	Nashville
Moore, James Gregory	<i>Agr (SS)</i>	94	Paris
Moore, Lewis Albert	<i>HSLAS</i>	62	Humboldt
Moore, Mabel Elizabeth	<i>MSE</i>	62	Nashville
Moore, Othmar	<i>ME</i>	33	Garrett, Indiana
Moore, Paul Robert	<i>LAS</i>	31	Carlinville
Moore, Sara Elizabeth	<i>HSLAS</i>	30	Danville
Moore, Vivian June	<i>Agr</i>	30	Stockton
Moore, Wayne Kenneth	<i>L</i>	30	Chicago
Moore, William Abner	<i>CE (SS)</i>	87	Urbana
Moote, Truman Pharaoh	<i>HSagr</i>	61	Manson, Iowa
Moran, Katharine Mary	<i>Agr</i>	49	Bartlesville, Oklahoma
Morean, Clarence Wheeler	<i>Agr (SS)</i>	49	Des Moines
Morehead, Gould	<i>LAS</i>	33	Montclair, New Jersey
Morey, Clara Adah	<i>Com</i>	33	Macomb
Morey, Drew	<i>Agr</i>	53	Manistee, Michigan
Morey, Philip Johnston	<i>EE</i>	53	Oak Park
Morgan, Dean Francis	<i>SS</i>	130	Kane
Morgan, J W	<i>LAS</i>	65	Wood River
Morgan, May Merboth	<i>Che</i>	104	Chicago
Morgan, Ralph Waldo	<i>L</i>	104	Macomb
Morgan, Thomas Sherman	<i>Com (SS)</i>	35	East St. Louis
Morita, Hanyemon	<i>HSLAS</i>	26	Kisarazu, Japan
Morrell, Melvin Hill	<i>ME</i>	115	Watseka
Morrill, Leslie Sherman	<i>SS</i>	108	Blue Island
Morris, Bertha May	<i>AE</i>	108	Greenview
Morris, Cecil Milo	<i>Agr</i>	31	Clinton
Morris, Harold Harrison	<i>HSLAS</i>	74	St. Louis, Missouri
Morris, Helen Elizabeth	<i>MnE</i>	63	Harrisburg
Morris, Nelson Marvin	<i>SS</i>	41	Bay City, Michigan
Morris, Wilbert Willard	<i>ME</i>	36	Columbus, Indiana
Morrison, Carl Raymond	<i>Agr</i>	67	Elkhart, Indiana
Morrison, Clay Alexander	<i>Agr</i>	12	Fairbury
Morrison, Ivan G	<i>HSLAS</i>	12	Waterloo
Morrison, Lethe Eleanor	<i>LAS (SS)</i>	147	Waterloo
Morrison, William Raymond	<i>Agr</i>	3	Bloomington
Morrissey, John O'Connell	<i>A (SS)</i>	18	Rapides, Louisiana
Morrow, Irwin Gealy	<i>Agr</i>	31	Hinckley
Morsch, Elmer John	<i>EE</i>	2	Kansas City, Missouri
Morse, Guy Edward	<i>Com</i>	2	Olney
Morse, Richard Irving	<i>ME</i>	2	Kewanee
Morse, Robert Lay	<i>CE</i>	2	Chicago
Morton, Alfred Hammond	<i>LAS</i>	2	Champaign
Morton, Marguerite	<i>Agr</i>	2	Homer
Morton, Robert	<i>A</i>	2	Calhoun, Kentucky
Moseley, Jason William	<i>LAS</i>	2	Chicago
Moser, Margaret	<i>LAS (SS)</i>	179	Sigel
Moser, Olga Fern	<i>Agr</i>	101	Chicago
Moses, Robert Louis	<i>HSLAS</i>	101	Urbana
Mosier, Leota Irene	<i>LAS</i>	32	Urbana
Moss, Alida Helen	<i>A</i>	72	Charles City, Iowa
Moss, C Sedgwick	<i>LAS</i>	68	Charles City, Iowa
Moss, Florence Louise	<i>SS</i>	63	Chrisman
Moss, Joseph Bardurant	<i>SS</i>	82	Mt. Vernon
Moss, Ruth Alice	<i>Com</i>	29	Oak Park
Mott, Maxwell	<i>Com</i>	29	Browns Valley, Minnesota
Motter, Archie Runkle	<i>Com</i>	29	Chicago
Motter, Henry Edward	<i>HSLAS</i>	98	Gibson City
Mottier, Julia Louise	<i>LAS</i>	98	Tuscola
Moulden, Clara Berenice	<i>SS</i>	109	Urbana
Moulton, Gertrude Evelyn,	<i>Agr</i>	109	Carlinville
A.B. (Oberlin) 1903	<i>Che</i>	89	Chicago
A.B. (Rio Grande Coll). 1905	<i>LAS</i>	89	LeRoy, Ohio
Mounts, Will Walter			
Moyen, Carl Peter			
Moyer, Charlene			

Moyer, Simon Jones	EE	ElDara
Mroz, August Ferdinand	LAS	Chicago
Mroz, Rudolph John	Med	Chicago
Mueller, Carl Oscar	AE	Chicago
Mueller, Harry Louis	Ch (SS)	Highland
Mueller, Henry Rollo, B.S. ( <i>Baker Univ.</i> ) 1914		
Mueller, Herbert Edward	Agr	Sedgwick, Kansas
Mueller, Herbert Zoller	AE	Chicago
Mueller, Richard Henry	EE	Quincy
Mueller, Walter Rudolph	Agr	Chicago
Muessel, Richard Adam	AB	Indianapolis, Indiana
Mulac, Louis Edward	Agr	South Bend, Indiana
Mulford, Edgar Theodore	ME	Chicago
Mulliken, Horace Watson	CE	Mason City
Mulliken, June	Agr	Humboldt
Mullins, Edward Richard	LAS	Champaign
Mullins, James Thomas	AE	Champaign
Mumm, Walter John	Agr	Champaign
Munns, Charles Willard	Com	Sidney
Munroe, Mary Flora	LAS	Peoria
Munson, Irving	SS	River Forest
Munson, John Leonard	Agr (SS)	Princeton
Munson, Morris George	AE	Randolph
Murata, Motosaburo	EE	Urbana
Murdock, Elizabeth Adams	LAS	Shingu, Japan
Murison, Richard Vivian	AE	Champaign
Murphy, Everett Franklin	Agr	Evanston
Murphy, George Raymond	ME (SS)	Marshall
Murphy, Howard Dawson	EE	Faribault, Minnesota
Murphy, Louise Phares	Agr (SS)	Chicago
Murphy, Mary Agnes	HSLAS	Western Springs
Murphy, Mildred Katharine	Mus	Sullivan
Murphy, Naibert D	LAS	Decatur
Murphy, Robert Brown	SS	Butte, Montana
Murphy, Robert Emmet	ME (SS)	Decatur
Murray, David Reese	ME	Anderson, Indiana
Murray, Eliza B	LAS	Chicago
Murray, Grace Mildred	SS	DeKalb
Murray, Harry Edward	LAS	Champaign
Murray, Leonard Ely	AE	Menominee, Michigan
Murray, Norris Fey (B.S., 1912)	AE	Springfield, Massachusetts
Murray, Sprague Elmo	LAS	Mazon
Murrill, Randall Tohman	Agr	Mazon
Musch, Harry Edwin	SS	Flat River, Missouri
Mussenden, Ruth Isabel	Ch	Beardstown
Muther, Charles Muther	HSLAS	Roswell, New Mexico
Myer, Frank B	AE	Oak Park
Myers, Delle Matilda	Agr	Kingman, Indiana
Myers, Emma Frances	AE	Sperling, Manitoba
Myers, Mabel Amanda	LAS	Summersville, West Virginia
Myers, Merton Jasper	ME	Summersville, West Virginia
Myers, Waldo Ray	Com	Champaign
Myers, William Henry	Med	Mansfield
Nachtrieb, George Williams	Com	Coul Valley
Naden, Gladys Leora	HSLAS	Elkhart, Indiana
Nafziger, John Monroe	EE	Newark
Nag, Nripendra Kumar	Agr	Hopedale
Nag, Surendra Chandra	MSE	Dacca, Bengal, India
Nagel, Charles August	EE	Calcutta, Indiana
Nakada, Kyoichi	EE	St. Louis, Missouri
Nakanishi, Shimbaji	EE	Okayama, Japan
Nakayama, Moki	EE	Aichi, Japan
Nance, Oliver Odell	EE	Kochi-Ken, Japan
Nate, Mildred	SS	Cape Girardeau, Missouri
Nebel, Veta Thorpe	LAS	Champaign
Needham, Catherine	LAS	Clinton
Needham, John Wilbert	LAS	Urbana
Needham, Minnie Lucile	AE	Urbana
Needler, Julien Hequembourg	HSLAS (SS)	Urbana
Neely, Bertha	ME	Chicago
Neely, John Childs, Jr	SS	Marión
Neff, Harold Alpha	A	Topeka, Kansas
Neff, Lloyd Lovell	Med	Rochelle
Neiburg, Simon Jacob	Agr	Chicago
Neil, Mark Crawford	EE	St. Albans, Vermont
Nelson, Adolph Lincoln	LAS	Oak Park
Nelson, Elmer Lawrence	ME	Galesburg
Nelson, Esther Pauline	AE	Chicago
Nelson, Gertrude	LAS (SS)	Fithian
Nelson, J. Ward	SS	Momence
Nelson, Paul Scofield	Agr	Vermont
Nelson, Roy Emmett	ME	Chicago
Nelson, Severina Elaine	LAS sp	Palestine
Nelson, Sidney William	LAS	Oak Park
Nelson, Walter Stephen	Com	Winnetka
	EE	Chicago

Nelson, William Oscar	ME	77	Peoria
Nesbitt, Carl Wesley	ChE	40	Macomb
Nesheff, George	ME		V. Tirmovo, Bulgaria
Neslage, Oliver John	ME	122	St. Louis, Missouri
Netcott, Roland Carl	AE	68	Independence, Iowa
Netz, Ralph Morlan	Com	35	Albion, Indiana
Neuhalfen, Mathias	AE	88½	Grand Island, Nebraska
Neuhauser, Edwin Valentine	Com	26	Gridley
Neville, Olive Myrtle	HSLAS	28	Keweenaw
Newburn, Iva Florence	HSLAS (SS)	37	Urbana
Newcomb, Edwin Eldwood	A	31	Burlington, Kansas
Newcomb, Walter Haines	Ch		Foosland
Newell, Effie J	SS		Charlestown, Massachusetts
Newell, Josephine	HSLAS (SS)	4	Urbana
Newell, Raymond Wilson	Agr		Keithsburg
Newlin, Florence	SS		Ridgefarm
Newlin, Harold Vance	LAS	70	Robinson
Newlin, Jesse H	SS	½	Decatur
Newlin, Ralph Thomas	L		Robinson
Newlin, Walter Allen	Agr	38	Annapolis
Newlin, Willard Bogue	LAS		Indianapolis, Indiana
Newman, Reuben Charles	ME	39	Chicago
Newton, Doris Charlotte	HSAgr		Glenn Ellyn
Newton, Helen Charlotte	Mus		Urbana
Newton, Robert Keith	EE	33½	Jerseyville
Nichol, Edward Sterling	LAS		Columbus, Ohio
Nichol, George William	Com	65	Anderson, Indiana
Nichols, Charles Henry A.	Agr	18	Hebron
Nichols, Floris Wilson	Com	101	Lacon
Nichols, Harry Henry	LAS		Monticello
Nichols, Herbert Luthy	LAS		Washington, D. C.
Nichols, Hilton C	Agr		Momence
Nichols, Josephine Marie	LAS	62	Dixon
Nichols, Mary Anderson, A.B. <i>(Beloit Coll.)</i> 1910			Hebron
Nicholson, Margaret	Lb		Gibson City
Nickell, Nelle	SS	13½	Fairfield
Nickolls, Cecil Richard	LAS		Stark
Niebergall, Philip Alfred	Agr sp	87	New Orleans, Louisiana
Nierstheimer, Minnie Barbara	LAS		Pekin
Nightingale, Eugene Richard	HSLAS		Champaign
Nihart, Fred Dallas	EE	22	Pana
Niu, Yin Hsiang	SS	6½	Huchow, Chekiang, China
Nix, Julius Carl	RME		Freeport
Noble, Joseph Morgan	CE	40	Wichita, Kansas
Noble, Merle Emmett	LAS	113	Savoy
Noble, Porter Charles	LAS		Bloomington
Nolan, Albert Joseph	Agr	22	Harvard
Nolan, John Timothy	Agr	99½	Gilbert, Minnesota
Nolin, Ruby Edith	CE	38	Milford
Noone, Byron Mortimer	HSLAS		Haworth, New Jersey
Norberg, Alfred	LAS	27	Champaign
Nordenholz, Walter	CE	139½	Oak Park
Norgaard, Ralph	Agr		Wheaton, Minnesota
Norlin, Fred Christian, Jr.	LAS		Chicago
Norling, Albert Emanuel	CE	101	Aurora
Norman, Gerald William	SS		Kirkwood
Norman, Milton Eugene	CE		Chicago
Normile, John Morrissey	A	67	Bloomington
Norris, Dwight Reed	CE	73	Newman
Norris, Richard Daniel	AE		Chicago
North, Clyde James	Agr	104	Winchester
North, Page Lane	Ag	30	Chicago
Norton, Arlo	Agr		Bloomington
Norton, Art Everett	Agr		Alto Pass
Norviel, Herald Gernard	Med	30	Urbana
Nott, Edson Lowell	Agr	25	Byron
Nowlen, Gladys	SS	40	Morrison
Null, Miriam Ellen	HSLAS		Colchester
Nunbesser, Selma	SS		Danville
Nusbaum, Emil Justice	EE		Streator
Nyberg, Florence Anna	LAS sp		Urbana
Oakes, Ella Baxter	HSAgr	58	Laura
Oakes, Hubert LaMont	Agr		Laura
Oakes, James Lowell	LAS		Dayton, Ohio
Obenchain, Maude Edna	SS	6½	South Whitley, Indiana
Oberdorfer, Henry Dixon, B.S., 1910	Com		Bloomington
Oberg, Philip Wiseman	A		St. Cloud, Minnesota
Oberlander, Marie	Agr	16	New York City
Oborne, George Struble	ME		Chicago
Oblander, Helen Elizabeth	LAS		Bushnell
O'Brien, Paul Thomas	SS	15½	Maple Park
Ocheltree, Maurice Webster	LAS (SS)	10	Homer
Ochoa, George Vizcaino	EE		Guadalajara, Mexico
Ochs, Chester Adam	Com	59	Chicago

O'Connell, Jerome Anthony	Com	Springfield
O'Connell, William Rolfe	Com	Springfield
Odell, Laura	SS	Oakland
Odenkirk, Zellie Coy	EE	Auburn, Indiana
Oestreicher, Maud Esther	SS	Vincennes, Indiana
Ogg, John Hurley	ME	Buffalo, New York
O'Hara, Reaburn James	Agr	Chicago
Ohinata, Chiyozi	Com (SS)	Matsumoto, Japan
Ohrum, Dwight Broadnax	RCE	Indianapolis, Indiana
Olander, Ernest Allen	CB	Topeka, Kansas
Olbrick, Fred George	CE	Cedar Falls, Iowa
Olesen, Alma Carrie	HSLAS	Highland Park
Olesen, Harold Loeffel	CE	Highland Park
Olin, Irwin Blaine	Com	Evanston
Oliveras, Ovidio	LAS	Chicago
Olmsted, Roscoe Thomas	Com	Cattin
Olsen, Arthur Alexis	Agr (SS)	Newark
Olsen, Carlton Frederick	ME	Chicago
Olson, Arthur Luther	Agr	Chicago
Olson, Milton Olaf	SS	Monticello
Omeara, Allan Richard	Com	Chicago
O'Neill, Margaret Ellen	SS	Dayton, Ohio
Opie, Glen Elizabeth	HSLAS	Wheaton
Orland, Frank Addison	REE	Murphysboro
Orland, Fred William	Agr	Murphysboro
Orton, Julian Rockwood	LAS	Lincoln
Osborn, Deane Harold	Com	Urbana
Osborn, Howard Gunnell (A.B., 1915)	Agr	Coldwater, Michigan
Osborne, Pauline Theodora	LAS (SS)	Champaign
Ostermeier, Bertha Johanna	SS	Springfield
Ott, David Lee	ME	Prophetstown
Ott, John Eken	ME	Chicago
Ott, Percy Wright	MSE	Mt. Hermon, Louisiana
Otto, Gordon	Agr	Chicago
Otto, Harwood	Med	Chicago
Oulson, Fern Fannie	SS	Godfrey
Ousley, Glen Charles	Agr	Brockton
Overbee, William Bryan	EE	Fairfield
Overend, Harrison George	A	Edelstein
Overlock, John Andrew	MnE	Chicago
Overton, Ralph Marion	ME	Winchester
Owen, Charles Norton	ME	Chicago
Owen, Edith	SS	Amo, Indiana
Owen, Harold Patterson	CE	Chicago
Owen, Harry Lea	AE	Plano
Owen, Jane	LAS	McHenry
Owens, Bernice Russell	Agr	Pana
Oxman, John Murrell	HSLAS	Lake Bluff
Pack, Mary	LAS	River Forest
Paddock, Rolf Cottingham	Med	Pana
Paddock, Richard	Agr	Terre Haute, Indiana
Page, George James	LAS	Chicago
Page, Harold Meredith	ME	Keota, Iowa
Pagin, John Beitner	Mus	La Grange
Paisley, Sela Isabel	Agr	Urbana
Palfrey, John Robert	Lb	Urbana
Palm, Elizabeth Myrtilla, B.S. (Michigan Coll.) 1911	CE	East Lansing, Michigan
Palmer, Arthur Bowen	Ch (SS)	Mt. Pleasant, Iowa
Palmer, Charles Shattuck	Com	Urbana
Palmer, Gerald Lewis	SS	Chicago
Palmer, Walter Fred	ME	Salamanca, New York
Pancoast, Donald A.	HSLAS (SS)	Champaign
Pankow, Grace Elizabeth	CE	Elgin
Papmeier, Louis Stahl	LAS	Litchfield
Parden, Frank Broyles	AE	East St. Louis
Parish, William Love	Agr	Greenfield
Park, Jay Peter	HSLAS	Chicago
Park, Martha Ann	Agr	St. Louis, Missouri
Parker, George Thomas	SS	Carrollton
Parker, Helen, B.Mus., 1914	RME	Champaign
Parker, Gilbert Morris	CE	Beardstown
Parker, Joel Weaver	LAS	Mattoon
Parkes, Charles Holcombe	Agr	Chicago
Parkinson, Kenneth Warren	LAS	Maxwell
Parks, Catherine Elizabeth	Com (SS)	Du Quoin
Parks, Frank Austin	Mus	Urbana
Parks, Ralph Milt	L	Urbana
Parlee, Edward Wesley Thomas	Ch	Chicago
Parmely, Miles McKinstry	Agr (SS)	Urbana
Parr, Arthur Eldon	CerE	Champaign
Parr, Harold Lucian	SS	Urbana
Parrill, Dean		Forrest

Parsons, Maud E., A.B., 1907	SS	Urbana
Parsons, Robert Roy	Com	Urbana
Partlow, Carrie Marie	LAS (SS)	23 Danville
Pastel, Alfred Robert	A	45 Chicago
Patchill, Glen T.	Com	
Pathak, Mukand Lall	EE (SS)	113 Dickhott, Lyall Pur, Punjab, India
Patterson, Joseph Julian	A	96 Danville
Patterson, Nellie Rand	HSLAS	82 Chicago
Patterson, Willa Ruth	SS	103 Baldwin
Patton, Frederick William	Agr	63 Montclair, New Jersey
Patton, Harry	Com	Waynesburg, Pennsylvania
Patton, John V.	LAS	51 Atlanta
Patton, Lee Moyer	Agr	Bridgeport
Patton, Richard Chalmers	LAS	35 Atlanta
Paul, Berenice Marie	LAS	Chicago
Paul, Frank Martin	ME	31 Kewanee
Pauli, Adolph Frederick	LAS (SS)	113 Peoria
Pause, Clara Elnora	Com	35 Chicago
Pavey, Charles Allen	Com	21 Chicago
Pavietas, Charles S.	Agr	Naujamiestis, Kaona, Russia
Pawson, John Thomas	Com	Sidell
Peadro, Benjamin Harrison	Agr	Sullivan
Peadro, Bernice F.	LAS	95 Sullivan
Peadro, Eva McDonald	Mus	Urbana
Peale, Margaret	HSLAS	30 Belvidere
Pearce, Charles Ernest	Com	White Hall
Pearson, Francis H.	ME	38 Hinsdale
Pearson, Homer Arnold	EE	71 Thorntown, Indiana
Pearson, Robert Miller	LAS	Thorntown, Indiana
Pecchia, Victor Anthony	CE	94 Chicago
Pechmann, Henry Charles	AE	Webster Groves, Missouri
Peck, Blaine Leroy	Agr	Thomson
Peck, Frederick Albert	EE	43 Chicago
Peck, Irving Kellogg	MnE	Joliet
Peck, Roy Lee	CE	97 Oak Park
Pedler, Russell Henry	ME	98 Chicago
Pearson, Mary Lucile	HSLAS	31 Murphysboro
Pell, Hazel Maria	HSagr	33 Urbana
Pemberton, Bessie	SS	17 Eldorado
Pendarvis, Harry Reed	EE	117 Chicago
Pendarvis, Wilbur Otis	L	Media
Pendry, Eliza Ruth	LAS	26 Chicago
Penhalow, Lambert Benjamin	ME	39 Chicago
Peniston, Oscar J.	LAS	Dixon
Penny, James Leonard	Agr	Evanston
Percival, Frank William	Com	Champaign
Percival, Joseph W.	Agr	33 Champaign
Percival, Lilley Ruth	HSagr	32 Urbana
Percival, Marion Louise	LAS	130 Champaign
Percival, Stella Rebecca	Mus	66 Champaign
Percy, George Stanford	ME	Chicago
Perkins, Frances Janet	LAS	51 Laurel, Mississippi
Perlman, Mandel	Com	Chicago
Perlman, Samuel Charles	LAS	Chicago
Perrott, Richard Henry	LAS (SS)	84 Claremont
Perry, Edna Verne	SS	60 Plainfield
Perry, Robert Ashman	ME	56 Urbana
Peters, Everett Robert	Agr	19 St. Joseph
Petersen, Marvis Hecht	Agr	28 Chicago
Peterson, Chester Almon	Agr	69 Galesburg
Peterson, Eleanor Sarah	HSagr	155 Galesburg
Peterson, Franklin Merle	Com	Brownstown
Peterson, Irving Leonard	Agr	DeKalb
Peterson, James Andrew	LAS	Chicago
Peterson, Joel Asbury	LAS	28 Urbana
Peterson, Mabel Elizabeth	HSLAS	Maywood
Peterson, Reuben Walter	Agr	68 Chicago
Peterson, Silas Carlisle	Agr (SS)	8 Herscher
Peterson, Timothy Edwin	Agr	Mesa, Arizona
Peterson, William Chandler	A	108 North Crystal Lake
Petesch, Edyth Marion	HSLAS	McHenry
Petesch, Gerner	ChE	McHenry
Pethybridge, Frank Howard	Agr	Chicago
Petter, Stanley Dubois	ME	38 Paducah, Kentucky
Pettit, Arthur Edwin	LAS	64 Stuttgart, Arkansas
Petty, Lawrence Otis	Agr	Sumner
Petty, Manley Ross	EE	37 Shumway
Petzing, Edwin Rudolph	Agr	Lebanon
Pfeffer, Louis Herman	EE	79 Chicago
Pfeiffer, Conrad Louis	ME	77 Peoria
Pfeiffer, Rudolf Salisbury	Com	30 Evanston
Phalen, Robert William	Com	11 Monticello
Pheanis, Russell Hitchner		

Philbrick, Gladys	LAS		Champaign
Philbrick, Lois	LAS	64	Champaign
Phillips, Alice Emma	HSLAS (SS)	31	Champaign
Phillips, Frank Williams	SS	6 $\frac{1}{2}$	Cerro Gordo
Phillips, Harriet Muriel	Agr	33 $\frac{1}{2}$	Chicago
Phillips, Joseph Edward	Agr	17 $\frac{1}{2}$	Green Valley
Phillips, Lemuel	LAS		Mt. Vernon, Indiana
Phillips, Minnie Alice	HSLAS	65	Sullivan
Phillips, Ruth	HSLAS	49	East Cleveland
Phillis, Louis Irving	MB	39	Chicago
Phipps, James Blaine	LAS (SS)	33 $\frac{1}{2}$	McDonald, Kansas
Pickard, Dorothy Everett	LAS		Maywood
Pickard, Marion Frances	LAS		Maywood
Picken, John Francis	Agr	109	Argyle
Picken, Ralph Montgomery	Agr	34	Argyle
Picker, Edna Adessa	HSLAS		Assumption
Pickett, Arthur William	CE	39	Chicago
Pieper, Arnold Christian	EE		Chatham
Pieper, John	Agr	114	Urbana
Pierce, Benjamin Elmer	CE	94	Genoa
Pierce, Clinton Albert	CE	35	Brooklyn, New York
Pierce, LeRoy	SS		Morning Sun, Iowa
Pierce, Maurice J.	Com		Gifford
Pierik, John Cornelius Jr.	Com		Springfield
Pierson, Anna Mary	SS		Lexington
Pierson, Frank Harlan	MSE	64	Fairfield, Iowa
Pierson, Raymond Henry	ChE		Chicago
Pierson, Walter Raymond	Com	111	Princeton
Pihlgard, Eric Frederick	A	106 $\frac{1}{2}$	Chicago
Pilchard, Edwin Ivan	Agr	18	Mansfield
Pinckard, Harold Recenus	Com		Monticello
Pingel, Eunice Marie	Med		Fulton
Pinkley, James Pierpont	A	101	Gibson City
Pinkney, Fred Theodore	LAS	109	Chicago
Piper, Leo Edward	A	12	Byron
Pitsenbarger, Ethel Gertrude	LAS	74	Champaign
Flagge, Irwin Fred Willard	Ch	68 $\frac{1}{2}$	Deerfield
Pletcher, Velma Coe	HSLAS	97	Rochester, Indiana
Flymala, Bethia	HSLAS (SS)	35	Dunleith, West Virginia
Poehlmann, Earl Franklin	Agr	27	Morton Grove
Poehlmann, Walter Gustave	Agr		Morton Grove
Pogue, Harold Austin	Com	99	Decatur
Poirot, Severine Andrew	L		Bellerville
Polakow, Alexander Hyman	ChE (SS)	132	Chicago
Polk, Arthur Eugene	CerE		LaGrange
Polk, Robert Edmund	CerE	62	LaGrange
Polkowski, Anna	LAS		Champaign
Pollock, Leone Ruth	HSLAS	31	Polo
Pool, Ernst Howard, A.B., 1915	L		Ottawa
Poor, Leonard Shroule	Com	62	Streator
Pope, Walter Scott	SS	8	Stronghurst
Poppove, Rachko Petroff	EE	57	Selo Musina, Bulgaria
Porter, Ada Lenore	SS	7 $\frac{1}{2}$	Milwaukee, Wisconsin
Porter, Harry Hubert	MnE	74	Gerlaw
Porter, Hazel Lucille	Agr		De Land
Possolt, Bertha Theresa	SS	5	Westville
Postel, Urban Stuart	Com	68	Masontah
Postle, George Richardson	A		Elgin
Postlewaite, Harriet Leotine	Agr (SS)	37 $\frac{1}{2}$	Urbana
Potter, Ellis J.	A	158	Morrison
Potter, Glenn Edward	EE	72	Springfield
Potter, Phil Harry	Agr (SS)	55	Chicago
Powell, Henry Albert	Agr sp		Birmingham, Alabama
Powell, Ruth Mabel	LAS		Quincy
Powers, John Howard	Com	68	Decatur
Powers, J. Orin	SS	126 $\frac{1}{2}$	Chebanse
Powers, Ray Austin	Agr	62	Joliet
Prall, Beatrice, A.B. (Univ. of Arkansas) 1911	Lb (SS)	43	Hope, Arkansas
Prante, Beulah Wise	LAS		Quincy
Pratt, James Bruce	Com	89	Sheldon, Iowa
Preble, Robert Curtis	ME		Oak Park
Presson, Lola Iris	HSLAS	81	Champaign
Freston, Alvin Fred	Agr	112	Montfort, Wisconsin
Frice, Arthur Lowell	Agr	30	Decatur
Price, Charles Bradlaw	Agr sp	102	Vienna
Price, Melville Halsey	Ch	63	Chicago
Price, Miles Oscar, S.B. (Univ. of Chicago) 1914	Lb	14	Plymouth, Indiana
Price, Raymond Lester	EE	26	Rockford
Primm, James Kelley	LAS (SS)	108	Champaign
Primm, Pauline Elizabeth	Mus	24	Champaign
Primm, Philip Timon	Agr	101	Champaign
Primmer, George Henry	SS	8	Sidney

Prince, Ben James	Agr	33	Lansing
Prince, William Jasper	SS	130 $\frac{1}{2}$	Urbana
Pritchard, Elliott Alfred	Agr		Aurora
Proessl, Otto	Che		LaSalle
Propst, Duane Willard	Med	105	Springfield
Prosser, Catherine Stewart	SS	6 $\frac{1}{2}$	Fayette, Missouri
Prosser, John Aubrey	EE		Evanston
Protine, Fred Leon	LAS		Libertyville
Prucha, Martin John, Ph.D. (Cornell) 1913	Mus sp		Urbana
Pruett, Eugene Francis	Agr	100	Kinmundy
Przypyszny, Casimir	LAS		Chicago
Pugh, Ada Roberta, A.B., 1915	Agr	149 $\frac{1}{2}$	Champaign
Pulcipher, K DeWitt	Com	34	Centralia
Pulsipher, Irene Emma	HSAgr	98 $\frac{1}{2}$	Elmwood
Purcell, Bryant Franklin	Agr	25 $\frac{1}{2}$	Polo
Purcell, William Thomas	AE	74 $\frac{1}{2}$	Chicago
Purnell, William Frank	Agr	34	Muncie
Purcell, James Roland	EE	49	Chicago
Putnam, Mary Heiskell	HSLAS		Chicago
Quandt, Coramae	Agr	51	Urbana
Quesenberry, Ruth Lucille	HSLAS (SS)	98 $\frac{1}{2}$	Champaign
Questel, Benjamin Harrison	Agr	98	Carmi
Quick, Beryl Wayne	Agr		Bement
Quick, Harry	CE	75	Tiskilwa
Quigley, Laurence Joseph	SS	6 $\frac{1}{2}$	Concordia, Kansas
Quinn, Florence Katherine	Mus	38	LaFayette
Quisno, Raymond Edward	LAS		Peoria
Raab, Anita Emma	LAS	101	Belleville
Raaberg, Ralph Skancke	AE	75	Chicago
Racheff, Ivan	CE	22 $\frac{1}{2}$	Lovech, Bulgaria
Rackliffe, Thomas Thayer	Med	18 $\frac{1}{2}$	St. Joseph, Missouri
Rafferty, John Joseph	ME	54	Chicago
Rafferty, Raymond Charles	Agr	38	Canton
Raffowitz, Frank	ME	115	Chicago
Rafinski, Clement Joseph	Com	36	Thomaston, Connecticut
Rahel, John Clifford	LAS		Paris
Rahn, Lester Addison	Agr	30 $\frac{1}{2}$	Lanark
Rahn, Robert Charles	CerE (SS)	100	Chicago
Raibourne, Claude	Com	101	Waterloo
Raibourne, Paul Albert	EE (SS)	73	Waterloo
Raines, Lester Courtney	LAS (SS)	39	Milford
Raithel, Kathrene Rose	LAS	34	Chicago
Ramirez, William	CE		Porto Rico, P. I.
Ramsay, Crawford John	SS	84	Johnston City
Ramser, John Hubert	ME	75	Alma
Randa, Charles Edward	EE	72	Chicago
Randall, Earl Everett	Med		Chicago
Randall, Frank John	Agr	29	Aurora
Randall, Grace Louise	LAS	59	Rogers Park
Randall, Oscar	CE		Washington, D. C.
Randolph, Cora Creagar	LAS	62 $\frac{1}{2}$	Kansas City, Missouri
Randolph, Glenn Lake	CE		Trilla
Rang, Carl King, A.B., 1914	L	47	Rockford
Rankin, Lure Jane	HSLAS	27	Payson
Rankin, Robert Edmund	Agr sp	23 $\frac{1}{2}$	Payson
Ranney, George Henry	Com	32	Chicago
Ranney, Joel Alden	Agr	62	Cazenovia
Ranney, Maude Esteline	LAS	125	Little York
Ranney, Nathan Charles	Agr	34	Little York
Ranney, Willard Parminter	Agr	68	Cazenovia
Ransford, Maurice Reuben	A		Muskegon, Michigan
Rao, Dharwan Vijaya Lobja	Agr		Hopet, India
Raphaelson, Sampson Milcs	LAS	58	Chicago
Rapp, John Holly, A.B., 1915	L		Fairfield
Rasmussen, Harold Eijner	Com		Chicago
Ratcliff, Maude Hadley	SS	12	Greenup
Ratcliffe, Isaac LaGrange	Com	101	Highland, Kansas
Rathbun, Harry Rowland	Agr		Glen Ellyn
Rathbun, Hubert Honens	Agr	61	Spring Valley
Rathsack, Mary	LAS	78	Greenview
Rawlings, Howard Charles	EE	30 $\frac{1}{2}$	Farmer City
Rauch, George Clarence	SS	7	Chicago
Ray, Elva Artrice	Agr		Sullivan
Ray, Luke Cranston	Med	30	Fort Worth, Texas
Read, James Kempt	Agr		Chicago
Read, William Gordon	Com	36	Bloomington
Reagan, Maurice Edwin	EE	86 $\frac{1}{2}$	Canton
Reber, John Alfred	SS		Kansas City, Missouri
Redding, Charlene Clara	Agr		Mattoon
Reding, Ralph Spears	Agr	24	Pekin
Reece, Austin Newton	Med	33	Springfield
Reece, Robert Howell	Com	5	Evanston
Reed, Cecil Charles	Com		Stockland
Reed, Hazel Viola	HSLAS	60	Auxvasse, Missouri

Reed, John Wesley	LAS		East St. Louis
Reed, Leo Bracy	Com	23	Eldorado
Reed, Maurice Johnson	MnE	75	Emerson
Reed, Robert Wallace	Agr		Warsaw
Reeder, John Cormin	SS	383	Pittsfield
Reese, Leal Wiley	L		Urbana
Reese, Lucile Nancy	Agr (SS)	513	Urbana
Reese, Raymond Leslie	Agr (SS)	49	Jonesboro, Arkansas
Rees, Stella Georgia	HSLAS		St. Louis, Missouri
Reeves, Bert	SS	8	Weldon
Rehm, George Edward, Jr.	Agr (SS)	14	Chicago
Rehnquist, Ernest Ferdinand	EE	70	Chicago
Reichelderfer, Harry	EE	30	Peoria
Reid, George Hoster	Agr	31	Mt. Vernon
Reid, Harold Speer	Agr	36	St. Paul, Minnesota
Reid, Mildred	HSLAS		Sullivan, Indiana
Reid, Stewart Franklin	Com		Springfield
Reinel, Bert Edward	LAS	49	Streator
Reinsch, Bernhard Paul	A	120	Muscatine, Iowa
Reinwald, Frederick John	EE		Carmi
Reiter, Rutherford Graff	SS		Pittsburgh, Pennsylvania
Remington, MacWilliams Daniel	A	603	St. Louis, Missouri
Remley, Walter Brown	Agr		Waynestown, Indiana
Renner, Enos Henry	Agr (SS)	25	Urbana
Renning, Albert Gordon	Com sp	15	Highland Park
Reno, Guy Benjamin, A.B., 1915	L	33	Browning
Rentchler, Marion David	Com		Mt. Vernon
Renwick, George W.	ME	108	Chicago
Replinger, John Edward	AE		Chicago
Reschetz, Ernest Mathers	EE	72	Staunton
Retherford, Miriam Browning	HSLAS	21	Carthage, Indiana
Retz, Catherine Mable	HSLAS	66	Ottawa
Reuling, Clarence Weiss	Com	59	Morton
Reuter, Helen	SS	6	Quincy
ReVeal, Ivan Lindsey	ChE	26	Hoopeston
Reynolds, Ora Edgar	LAS	94	Guthrie
Rhoads, Marie Corzine	LAS	29	Champaign
Rhodes, Alice Louise	LAS		Harvey
Rhodes, Carlyle Seeds	CE	110	Lovington
Rhodes, Golda May	HSLAS		Urbana
Rhodes, Opal Terrissa	HSLAS		Urbana
Rhue, Lena Cecelia	Com	5	Champaign
Rhue, Perry Marion	Com	33	Champaign
Rice, Katherine Grace	LAS	54	Philo
Rice, Nathan Lyman	Agr		Champaign
Richards, Gladys Ersel	Mus		Silvis
Richards, John Ott	Agr		Urbana
Richards, Lenore, A.B., 1915	LAS	131	Chicago Heights
Richardson, Francis Edward	Agr	27	Morristown, New York
Richardson, Harvey Russell	EE	72	Urbana
Richard, Berta Estella	HSLAS	18	Champaign
Richart, Blanche Belle	HSLAS	50	Chicago
Richey, Friedel Chapin, B.S., 1914	LAS	130	Georgetown
Richey, Wilson Leaverton	SS	74	Villa Grove
Richman, James Herbert	EE	32	Taylorville
Richmond, LeVoy Fred	Com		Champaign
Richmond, Noble Leslie	Com		Geneseo
Richmond, Warren McLellan	Agr	69	Davenport, Iowa
Richter, Gertrude Katharine	LAS	313	Wilmette
Richter, Harry Allen	Com		Urbana
Ricker, Ethel	A sp (SS)	4	Urbana
Ricketts, Hazel	SS	3	Clinton
Ricks, Juanita May	Com	16	Freeport
Rideout, George Rawleigh	Com		Hart, Michigan
Rider, Geo. L.	SS	63	Elgin
Rider, G. Wellington	EE		Champaign
Ridge, Frances Marion	LAS (SS)	68	Galatia
Riegel, Bertha	HSAgr	12	Golden Gate
Rigg, Granville LeRoy	Agr	1023	Golden Gate
Rigg, Joseph Harold	Agr sp		Sorento
Riggins, Martha Frances	SS	63	Atwood
Riggs, Mildred Eleanor	HSLAS	443	LeRoy
Rike, Ronald Van Atta	Agr		Carlisle
Rinaker, Janet	LAS	85	Springfield
Rinaker, John Irving	Agr	31	Toledo, Ohio
Ringeisen, Hazel Novella	LAS		Chicago
Ripple, Ruth Anna	LAS		Champaign
Rising, Blance Josephine	LAS sp		Decatur
Risley, Walter John, Jr.	Ch		Champaign
Risser, Constance Katherine	HSLAS		Mason City
Rissinger, Arthur Joe	Med		Crystal Lake
Ritt, Walter William Henry	A	29	Chicago
Ritter, John Gilman	AE	78	Chicago
Ritter, Walter Theobald	REE	47	Chicago
Ritts, Charles Laurence	A	132	Sparta
Roach, Doris Eleanor	LAS	62	Decatur

Roane, Theodore	LAS	59	Chicago
Roberts, C. J.	SS		Birnam Wood, Wisconsin
Roberts, Claude Morrill	Com	323	Decatur
Roberts, Elmer Clifford	AE		Oak Park
Roberts, Frances Ella	LAS		Thompsonville
Roberts, Harold Higbee	ME	143	White Hall
Roberts, Herbert	SS		Westville
Roberts, Jerome Gillespie	MnE (SS)	55	Chicago
Roberts, Malcolm Douglas	Agr	63	New York City
Roberts, Thomas Tenhook, Jr.	Agr sp	3	Decatur
Robertson, Arthur Beekman	Agr	32	Petersburg
Robertson, Charles Venable	Agr	66	Carlinville
Robertson, Harris Morton	SS	70	Petersburg
Robertson, Hugh Schuyler	CerE	111	Champaign
Robertson, Jane	SS		Champaign
Robertson, Miriam Selina	HSAgr	67	Champaign
Robinson, Albert William	ME	108	Oak Park
Robinson, Edith Alice	LAS		Goodfield
Robinson, Ethelyn Clyde	HSLAS	34	LaSalle
Robinson, Glenn Warren	Agr	65	Lincoln
Robinson, Harold Lynn	LAS		Urbana
Robinson, Henry Duncan	SS	87	Rockford
Robinson, Hugh Dean	LAS	33	Harvey
Robinson, John Lester	EE	62	Mt. Vernon
Robinson, Matthew Rodgers	Com		Port Royal, Pennsylvania
Robinson, Millard Milton			Maquoketa, Iowa
Robinson, Myra	HSLAS		Kansas
Robinson, Paul Gardner	Agr sp		Harvey
Robinson, Ruth Love	HSAgr	94	Edwardsville
Robinson, Warren Isaac	Agr	68	LaSalle
Rockey, Paul Thomas	AE	60	Freetport
Rockhold, Frank Duncan	EE		Wilmette
Rodgers, Perry Harrison	LAS	40	Atwood
Rodriguez, Antonio	CE	33	Mata Sta. Clara, Cuba
Roe, Raymond	A	32	Chicago
Roesner, Hedwig Elizabeth	SS	143	Moline
Roessler, William Otto	Agr (SS)	112	Shelbyville
Rogers, Elsie Marie	HSLAS	69	Havana
Rogers, Gardner Spencer	Agr	98	Evanston
Rogers, Harry Thomas	AE	107	Champaign
Rogers, Henry Sheldon	Agr	69	Marengo
Rogers, Minnie Oleta	SS	67	Champaign
Rogers, Russell David	AE	109	Pekin
Rohlfing, Walter Louis	Agr	100	Groveland
Rohn, Fred Andrew	AE	103	Chicago
Rohrbough, Elsie Gwendolyne	LAS		Kinnmundy
Rohrer, Frank Philip	LAS	97	Gilman
Rollins, Neta	LAS	31	Paxton
Romeiser, Alvin	Com	28	Belleville
Romero, Newman	LAS	43	Valparaiso, Chile
Romig, Jesse Arnold	EE	33	Champaign
Rompel, Ruth Edith	LAS	30	Champaign
Roney, George Andrew	ChE		Sullivan
Roos, Edwin George	Com	67	St. Louis
Root, Kimball	SS	137	Chicago
Rooth, James	CE	20	Joy
Roscoe, George Howard	Agr	77	Blue Island
Rose, Harold Boone	ME	115	Urbana
Rosecrans, Crandall Zachariah	ME		Champaign
Rosen, Bernard	Com	5	Chicago
Rosenberg, Emanuel	LAS		Decatur
Rosenberg, Frank	CerE	113	Chicago
Rosenberg, Herbert Bernard	Agr	77	Granite City
Rosenkranz, Dale DeForest	Agr		PawPaw
Ross, Anna Russell	LAS		Carrollton
Ross, Gertrude Duncan	SS	22	Philo
Ross, Harry Albert	Agr	68	Champaign
Ross, John McLinn	LAS	56	New Haven, Connecticut
Ross, Kenneth Dwight	Com	107	Grand Island, Nebraska
Ross, Nelda Glendora	HSAgr	33	Easton
Ross, Stanley Parker	A	21	Champaign
Rost, Theodore August	LAS		Petersburg
Rotramel, Everett Roy	Agr		Benton
Rotrock, Howard Moore	CE	111	Chicago
Rounds, Fred Grafton	A	137	St. Paul, Minnesota
Rourke, Ellen Mary	SS	130	Springfield
Rowe, Charles Baer	A	72	Chicago
Rowe, Jack LeRoy	EE	66	Chicago
Rowe, James	ME	75	Three Rivers, Michigan
Rowland, Nestor Sherman	Agr		New Haven, Connecticut
Roy, Frank Winston	EE		Danville
Rubright, Franklin LeRoy	Med	32	Emerson
Ruedl, Charles Henry	Com (SS)	59	St. Louis, Missouri
Rueff, Joseph Alvin	ME	107	Oak Park

Ruehe, Mabel Louise	Mus	128	Urbana
Rugh, Lucien Edgar	Agr	15	Arcola
Rumsey, Lois	LAS	343	Mattoon
Rumsey, Mary Hilliard	LAS (SS)	943	Mattoon
Rundle, Howard Edward	REE	109	Iron Mountain, Michigan
Rundle, W B	Agr	69	Clinton
Rundles, Charles Morton	LAS	108	Huntington, Indiana
Rundles, William Lloyd	Agr	121	Huntington, Indiana
Rundquist, Elmer Theodore	Agr	33	Harvey
Runneberg, Elton Cromwell	Agr	71	Crosby, Texas
Runyan, Clarence Edson	A	92	Eugene, Oregon
Ruppel, Arthur Daniel	Agr		Lynn, Massachusetts
Ruppel, Paul Earl	ME		Beardstown
Rush, Paul White	Med	36	Pittsfield
Rush, Roy Leslie	LAS	993	Mesa, Idaho
Rusk, Bessie Frances	SS		Arcola
Russell, Stuart	LAS		Jacksonville
Russell, Charles Clifton	Agr		Wheaton
Russell, Edwin Avery	CE	37	Buffalo, New York
Russell, Robert Marshel	SS	33	Jeffersonville
Russett, Jasper Phillip	A	95	Cedar Rapids, Iowa
Russinoff, Evan Paul	RME		Bulgaria
Russo, William Joseph	Agr		Chicago
Rust, Harold Jacob	Com		Pekin
Rust, Louis John	EE	109	Elgin
Rusy, Ben Franklin	Agr	741	Peoria
Rutherford, Florence	LAS	61	Alton
Rutledge, Burch Urwin	LAS	100	Bradford
Ryan, Benjamin Harold	Agr		Chicago
Ryan, Howard Robert	EE		Newman
Ryan, Joseph Francis	Agr sp		Chatsworth
Ryan, Walter Richard	LAS	32	East Moline
Ryder, Bruce Ivan	Med		Towanda
Rydor, Earl	EE	17	Danville
Sabin, Albert Robbins	Agr sp		Chicago
Sachs, Ward Hanson, B.S.	LAS		Urbana
Sackett, Fred Ward	Med		Belvidere
Saelhot, Clarence Charles	LAS (SS)	87	Crawfordsville, Indiana
Saffell, Gladys Deforest	HSLAS	67	Chicago
Sager, Anna Ellen	Agr sp		Chicago
Saidla, Glenn Ercol	Agr		Chicago
Sailer, Frank	SS	10	Elgin
Salerno, Joao	HSLAS	33	So Paulo, Brazil
Salisbury, Meta Emogene	Com	35	Urbana
Salladin, George Edward	SS	83	Milford, Nebraska
Saltzman, Herbert Sollie	LAS	92	Chicago
Samuels, Freda Irma	LAS	31	Chicago
Samuels, Theresa Minna	SS	161	Rockford
Sandehn, Casper Wilhelm	Agr		Cincinnati, Ohio
Sanders, Frank Wilson	ME		LaGrange
Sanderson, Arthur Kingston	LAS		Cairo
Sandler, Edward Adolf	Com	43	Moorhead, Iowa
Sandvold, Conrad Elmer	HSLAS	97	Danville
Sanford, Harriet Adelaide	LAS	673	Lebanon
Sanford, Juanita Lorraine	SS	62	Shelby, Michigan
Sanford, P C	Agr		Havana
Sanmann, Frank Paul	SS	63	New Castle, Pennsylvania
Sankey, Claude Wilson	LAS	93	Pasadena, California
Santee, Albert Merritt	AE (SS)	723	Philippines
Santiago, Alfreda Viola	L	42	Urbana
Sarett, Lew R. A., ( <i>Beloit Coll.</i> )	Com	32	Indianapolis, Indiana
Sargent, Francelia Plumly	Agr		Ferris
Sargent, Frank Akin	CE		Newport, New Hampshire
Sargent, Hubert Eugene	LAS		Chicago
Satterfield, Helen Charlotte	SS	7	Indianapolis, Indiana
Sattiner, Fanny Ruth	Com	11	Roswell, New Mexico
Saunders, Carl Jefferson	Agr	72	Frankfort, Michigan
Savage, William Chauncey	Med	913	Bellerive
Savage, William Elliott	Agr	33	Norborne, Missouri
Sawyer, Gertrude	Ch		Springfield
Sawyer, Isaac Cornelius	Agr	33	Springfield
Sawyer, Philetus Thomas	AE	59	Pueblo, Colorado
Saxton, Charles Van Keuren	SS	5	Johnston, Pennsylvania
Saylor, Owen Webster	ME		Bloomington
Scanlan, Chester Jerome	Mus sp		Champaign
Schaede, Emma Adelina	LAS	104	Quincy
Schaefer, Edgar Frederick	Com	16	Chicago
Schaefer, William Adolph	Agr	94	Butler, Kentucky
Schalck, Michael Andrew	ME	108	Mendota
Schalier, Gilbert Simon	A	83	St. Louis, Missouri
Schaumberg, Edward George Jr.	LAS	803	Brooklyn, New York
Sebecht, Max	LAS (SS)	993	Danville
Schechter, Ralph Wendell	SS		Bethany
Scheer, Raymond Ancil	LAS	32	Atwood
Scheffer, Wilhelmenia	Com		Jamestown, New York
Schenck, Henry Gelbach			

Schenck, Ralph Edwin	SS	76	Urbana
Schenck, Vernon Gates	Com		Jamestown, New York
Schernekan, William John	CerE	35	West Salem
Schickedanz, Louis Herman	ME	111	Pontiac
Schiesswohl, Ralph Louis	Com	111	Pontiac
Schiffelin, Arthur Krissler	ME	36	Chicago
Schindler, Samuel	SS	5	New York City
Schlacks, Henry Valentine	EE	16	Chicago
Schlader, Edward Holmes	REE (SS)	109	Oak Park
Schlader, Henry Mathias	ChE	9	Oak Park
Schleifer, Ferdinand John	Agr	68	Nashville
Schlemm, Robert Max	ME	55	Chicago
Schloss, Philip	Agr (SS)	32	Terre Haute
Schluter, Waldo Lauff	Com	87½	East St. Louis
Schmelzter, Chauncey Brockway	CE	19	Manteno
Schmidt, Clyde Clarence	Agr		Martinsville, Indiana
Schmidt, Earl Cochran	SS	4	Fort Missoula, Montana
Schmidt, Henry Galen	SS	16	Bellefontaine
Schmidt, Karl William	AE	133½	Kansas City, Missouri
Schmitt, Jay Stelbrink	LAS	26	Peoria
Schneider, Arthur Charles	CE	84	Galena
Schneider, Delmont Joseph	ME		St. Louis, Missouri
Schneider, Herbert	Med	22	Chicago
Schneider, Nora Wilhelmine	LAS		Urbana
Schneider, William Henry	LAS	22	Springfield
Schnellbacher, Jacob Paul	Com		Peoria
Schoch, Arthur John	EE	57	Tower Hill
Schoembs, Frank Alvin	L		Cairo
Schoene, Herbert Frank	AE	63	Chicago
Schoessel, Waldo Edward	Agr	44	Rock Island
Scholl, Raymond Stanley	Agr	97	Crafton, Pennsylvania
Schori, Margaret Opal	SS	15½	Elmwood
Schreiber, Edwin Henry	SS	7½	Baldwin
Schreiber, Louis Henry	Agr	33	Chicago
Schreiber, Nathan	LAS	54	Chicago
Schreiner, Harold Cordes	EE	54	River Forest
Schreiner, Warren William	Agr		River Forest
Schriner, Emma Ellen	SS	25	Peoria
Schroeder, Arnold Henry	LAS		Freelandville, Indiana
Schroeder, Robert Henry	Med		Nashville
Schroeppel, Harold Henry	EE	72	Mt. Carroll
Schroyer, Malcolm Edward	LAS	17	Pontiac
Schuck, Arthur Frederick	MnE		Washington, Indiana
Schueler, Herbert	ME	69	LaSalle
*Schuette, Otto Theodore	Agr (SS)	125½	Chicago
Schuler, Dement	Com	31	Dixon
Schuler, Don Buel	A	182	Wichita, Kansas
Schultz, Clarence William	EE		Harvard
Schultz, Louis William	Med		Oak Park
Schulz, Ernest Rudolph	Agr	115½	Russia
Schulz, Frank	Com	32	Elmwood
Schulz, John A	Ch	66	Elmwood
Schumacher, Dixie Howard	HSLAS	67	Rockport, Indiana
Schumacher, Howard James	Med		Highland Park
Schutte, William George	ME	101	Marseilles
Schwagmeyer, Emil Henry	Com		Quincy
Schweitzer, Benjamin Cecil	Com	32	Mt. Carmel
Schwing, Roy Rene	LAS		Peoria
Scott, Esther Selb	LAS		Venice
Scott, Ethel Leota	SS	6½	Danville, Indiana
Scott, George Eugene	AE	27	Chicago
Scott, Gerald Russell	Agr	69½	Chicago
Scott, Gladys Russell	HSLAS		Xenia, Ohio
Scott, Lincoln Bain	Agr (SS)	107	Boston, Massachusetts
Scott, Ralph A	Agr	66	Rock Falls
Scott, Robert Ashmore	Agr	91	Paris
Scott, Roy Sunderland	Agr sp		Spearfish, South Dakota
Scott, Shirley Edward	SS	130	Anderson, Indiana
Scott, Sidney Glenn	Com		Champaign
Scoville, John Allen	CE	39	Peoria
Scruby, Mildred Emma	LAS		Urbana
Seapham, Edward Jefferson	Agr	29½	Homewood
Search, Geneva Matilda	HSLAS		Onarga
Seale, Joseph Pearle	SS		Fairmount, Indiana
Seavey, Harry Richmond	EE	35	Momence
Seay, Paul Hendrix	Com	71½	Scottsville, Kentucky
Secord, Arthur Wellesley	SS	8	Greenville
Seeger, Hallie Josephine	SS		Beardstown
Seehausen, Paul	LAS (SS)	6½	Chebanse
Seely, Bessie Louise	HSagr		Joliet
Segur, John Bartlett	Ch		Watseka
Seibert, Kenneth Seward	A		Kendallville, Indiana
Seidner, Floyd	AE	31	Elkhart, Indiana

\*Deceased, December 28, 1915.

Seifert, Herbert Frank	LAS	90	Thiensville, Wisconsin
Seifried, Arthur George	Agr	110	Chicago
Seiler, Erna	LAS	24	Woodstock
Seiler, Herman Seiler	Agr		Urbana
Seiple, Sara Tyson	SS		Larned, Kansas
Sellars, William Heine	Agr (SS)	110	Champaign
Sellner, Edna	Ch	71	Quincy
Selzer, Louis Jacob	A	37	Evansville, Indiana
Semple, Arthur Truman	Agr	99	Riverton
Senbold, Heinrich John	Agr	23	Huntingburg, Indiana
Sense, Mattie Alice	HSAgr	74	Watseka
Senseman, Harold Leonard	AE	61	Monmouth
Severance, Lyle Elwood	Agr	90	Lansing, Michigan
Seward, George Ralph	Med		Mason City
Sexauer, Emilie	SS		Detroit, Michigan
Sexauer, James Monroe	Agr	31	Belvidere
Sexauer, Mae Magdalen	LAS	94	Belvidere
Seymour, Arthur Romeyn, Ph.D. (Univ. of Wisconsin) 1907	Mus sp		Urbana
Seyster, Lois Ferne	LAS		Champaign
Shaddock, Rolla Edward	Agr	14	Macon
Shade, Claude Cloide	Agr		Montpelier, Indiana
Shaffer, Randolph Clinton	REE	21	Plymouth
Shaffer, Rolla Fleming	Agr	101	Jeffersonville
Shaffer, Susan Kurzenkuabe	LAS		Champaign
Shaffer, Wilhelmine	HSAgr		Champaign
Shapiro, Jacob	LAS	15	Chicago
Shapland, Fern Elizabeth Page	HSLAS	31	Saundermin
Sharpley, Ralph P	Agr	20	Rockford
Sharer, Donald David	MSE	68	Decatur
Sharp, Bertha Lee	Mus sp		Urbana
Sharp, Ethel Ruth	Mus	2	Urbana
Sharp, James C	Agr	64	Champaign
Shaver, Elizabeth Fritzalen	SS	5	Gibson City
Shaw, Charlotte Joy	LAS	14	Urbana
Shaw, Delia	HSLAS		Rockport
Shaw, Frederick Wood	CE	74	Chicago
Shaw, Hallie	HSagr sp		Rockport
Shaw, Mary Louise	HSLAS		Harrisburg
Shaw, Wilfred	Agr		Marshall
Shaw, William Henry	SS	6	Marion, Indiana
Shawhan, Mercy Nadine	HSLAS		Decatur
Shawl, Ray Iris	Agr		Peoria
Shay, Mary Lucille	LAS	63	Decatur
Shea, Earl Clifford	Com		Lead, South Dakota
Sheaff, Robert Phineas	Agr	33	Holcomb
Sheasby, Victor	LAS		Chicago
Shedden, Forest Robert	EE		Elgin
Shedden, James William	CE	34	Chicago
Sheeks, Paul Preston	SS		LeMars, Iowa
Sheets, Ancel J	EE	30	Georgetown
Sheets, Haven McKendree	Agr	62	Freeport
Sheets, A Vernon	Com		Auburn, Indiana
Sheffer, William Heber	Agr	104	New Orleans, Louisiana
Shelby, Edwin Jr	CE	24	Winnebago
Shelden, Walter William	CE	111	Chicago
Sheldon, Beulah Mulford	Com	107	Sharpsburg
Sheldon, Henry Kellogg	LAS		Rockford
Sheldon, Nelson Edward	EE		Decatur
Shellabarger, William Lincoln	AE	31	Mt. Vernon
Shelley, Earl Frank	CE	32	Mt. Carmal
Shellhorn, Boyd Stanley	CE	118	Terre Haute
Shelton, Wilma Loy, A.B., 1914	LAS		Edwardsville
Sheppard, Charles Howard	Lb	33	Sullivan
Sheridan, Mary Beall	CE	75	Vienna, Virginia
Sherman, Caroline Elizabeth	LAS	69	Casey
Sherman, Leta Elmina	HSLAS		Urbana
Sherman, Ruth Mears	LAS		Monmouth
Sherick, John Chauncey	SS		Oak Park
Shewmon, Joe Allen	A	141	Lewistown
Shields, John Erwin	Agr	30	Decatur
Shilling, Franklin William	Agr	106	Palestine
Shinner, Earl Lester	Com	100	China
Shing, Chi Ting	LAS		Petersburg
Shipley, Paul Donald	RCE (SS)	69	Champaign
Shively, Jean	CE	27	Pasadena, California
Shlandenan, Harry Ricker	SS	6	Peoria
Shockley, Ruth	LAS	101	Charleston
Shoemaker, James Wright	Agr		Murphysboro
Shoemaker, Richard William	ME	37	Monticello
Shonkwyler, Francis Lucian	Ch (SS)	109	Tuscola
Shone, Horace Abbott	HSLAS (SS)	70	Urbana
Shott, Ruth Elma	HSAgr (SS)	71	Champaign
Shriver, Helen Elizabeth			

Shroyer, David Mirven	Agr	27	Urbana
Shryock, Lyle William	Agr		Canton
Shup, Laurence Edgar	LAS	34	Newton
Shuping, Dan	CE		Hillsboro
Shy, Frank Spain	Com	34	Olney
Siegfried, Edward Olaf	AE	104	Chicago
Siegmund, Humphreys	EE	81	St. Louis, Missouri
Siegrist, Damon Carl	Agr		San Jose
Siemens, Anna Blanchard	LAS	31	Kansas City, Missouri
Siemons, Webb Mellin	A	99	St. Joseph, Missouri
Sigfridson, Ebba Beatrice	HSAgr		Geneva
Signor, Nellie Marie, A.B., 1912	Lb	44	Urbana
Silberman, Oscar Emil	CE	107	Homewood
Silver, Harold Austin	Agr		Urbana
Silver, Hazel Marguerite	HSAgr		Philo
Silver, Milton Gans	LAS	67	Champaign
Silverman, Isadore	Agr	48	Chicago
Silverman, Michael	Med		Cleveland, Ohio
Simmons, Elwyn Leroy	AE		Oak Park
Simmons, Haskell George	EE		Avon
Simmons, Sidney Britain	Agr	10	Fayetteville, North Carolina
Simmons, Theodore Switzer	Agr	99	St. Charles
Simms, William Henry, Jr.	Agr	115	Gibson City
Simons, Rayna DeCosta	LAS	68	Chicago
Simpson, Earl Bruce	L	28	Eldorado
Simpson, Irene Elizabeth	LAS		Urbana
Simpson, John Milton	CE	53	Terre Haute, Indiana
Simpson, Laurance Packer	LAS	12	Onawa, Iowa
Simpson, Luther Franklin	ME	75	Moweaqua
Simpson, Mary Alice	Agr	103	Chicago
Simpson, Nelle Lucille	HSAgr	73	Macomb
Simpson, Sebastian Solon	LAS	26	Pana
Simpson, Thomas Moore	Agr	60	Alexis
Simpson, William George	LAS	35	Dundee
Sims, Delbert Edward	LAS	43	Newton
Sims, Jules Verne	Agr	103	Indianapolis, Indiana
Sinclair, Ovid Eugene	EE	65	Mason
Singer, Aaron Ernest	LAS		Chicago
Singh, Charn Jit	EE	86	Punjab, India
Singleton, James Hubert	SS	38	Buckley
Sipe, Raymond Erwin	Agr	34	Rochelle
Sippell, Beth Ester	LAS	51	Tampico
Sisson, Earl	Agr	29	Factoryville, Pennsylvania
Skaer, Edwin W	SS	11	Marissa
Skaggs, Allen Orrin	L	30	Shipman
Skelly, Ernest James	Com		Davenport, Iowa
Skelton, Charles Leonard	Agr (SS)	130	Urbana
Skelton, Maurice Bradford	LAS		Fairfield
Skelton, Winfred George	LAS		Fairfield
Skinner, Bertram Eugene	Agr		Chicago
Skinner, Marion Langworthy	L		Princeton
Skinner, Melvin Benjamin	REE		Salem
Slack, Herbert Lee	CE	105	Chicago
Slack, William Silas	EE	34	Salem
Slade, Katherine Claire	LAS	29	Rockford
Sladek, George Edward	CerE	72	Chicago
Sladek, Robert Bohumie	Agr	34	Cicero
Slaght, Evert Leroy	AE		Chicago Heights
Slater, Frank Clifton, A.B., 1914	L	66	Cherry Valley
Sleph, Irving Edward	LAS		Chicago
Sloan, Amelia Marie	HSAgr	65	Champaign
Sloan, Deena Agnes	HSLAS		Urbana
Sloan, Madeline Rebina	HSAgr		Urbana
Sloan, William Finlay	Agr (SS)	101	Belfast, Ireland
Slocum, Russell Wade	Agr		Chicago
Small, Dee	Agr		Galatia
Smallwood, J. P.	Com	64	Decatur
Smart, Ada Almira	LAS		Hinsdale
Smart, Alfred	MSE	56	Chicago
Sinart, Chauncey Harrison	Agr (SS)	63	Hinsdale
Smart, Ethelyn Marion	LAS		Hinsdale
Smart, Nellie May	LAS sp		Hinsdale
Smetana, Robert Joseph	AE		Chicago
Smidl, Edward	AE	80	Chicago
Smiley, Arval Marion	Agr		Tab, Indiana
Smiley, Earl James	CE		Elgin
Smiley, Lionel David	EE (SS)	105	Woodstock
Smith, Bryan Arthur	Med	27	Sullivan
Smith, Arthur Frederick	SS	6	Ford City, Missouri
Smith, Charles Eugene	CE	126	Chicago
Smith, Clara Mabel	LAS (SS)	83	St. Clair, Michigan
Smith, Clarence Walter	LAS	62	Champaign
Smith, Cleone Frances	LAS		Champaign

Smith, Cloyde Moffatt	MSE	Champaign
Smith, David Mervin	Agr	Urbana
Smith, Earl Joseph	SS	Canton
Smith, Fern Gladys	LAS	Maywood
Smith, Forest Henry	EE	Libertyville
Smith, F. Raymond	SS	Grand Ledge, Michigan
Smith, George Edward	Agr	Mahomet
Smith, George Grammer	A	Peoria
Smith, George Leslie	Agr	Geneseo
Smith, Gladys Louise	HSLAS	Rochelle
Smith, Glenn Calvin	Agr (SS)	Urbana
Smith, Glenn Collins	Agr	Greenfield
Smith, Hawley Lester	LAS (SS)	Clifton
Smith, Helen May	LAS	Rock Falls
Smith, Herbert Edgar	LAS (SS)	Cobourg, Ontario
Smith, Hubert Argo	A	Urbana
Smith, Irene Fern	SS	Red Bud
Smith, Isaac Wesley Kelly	Agr	Carmi
Smith, Jacob Allen	CerE	Altoona, Pennsylvania
Smith, Jennie Marie	SS	Benton
Smith, Jesse Parker	CerE	Depue
Smith, John Wesley	ME	Geneseo
Smith, Julian Francis	Ch	Champaign
Smith, Kenneth Hamilton	LAS sp (SS)	Chicago
Smith, Leonidas Logan	A	Effingham
Smith, Lois Loella	Mus	Urbana
Smith, Lucius Skinner, Jr.	Com	DuQuoin
Smith, Margaret Helen	HSLAS	Elmwood
Smith, Marian Kathryn	LAS	Monticello
Smith, Marshall Eugene	SS	Greenville
Smith, Orion Otis	Com sp	Oakwood
Smith, Orrin Richard	LAS	Plainfield
Smith, Ralph Lindon	Agr	Bellflower
Smith, Raymond Charles	Agr	Amboy
Smith, Robert C	SS	Pekin
Smith, Ronald Emerson	EE	Owensville, Indiana
Smith, Russell Mayes	Com	Chicago
Smith, Theodore Hammond	Med	Godfrey
Smith, Valda Eveline	HSLAS	Geneseo
Smith, Wilhelma Zoe	LAS	Champaign
Smithers, Perry Lafayette	Com	Wilmette
Smohl, Barbara Belle	LAS (SS)	Vandalia
Smoot, William Everett	Agr	Greenview
Snell, Clarence Eastlake	Com	Oak Park
Snell, Harry Stirling	ChE	Oak Park
Snider, George Wilson	Agr	Broken Arrow, Oklahoma
Snoddy, Raymond Leffel	LAS	Danville
Snook, Earl William	Agr	Ottawa
Snow, Ruth Lucille	Mus	Elgin
Snyder, Daniel Victor	CE	Chicago
Snyder, George David	CerE	Altoona, Pennsylvania
Snyder, Glenn	Agr	Billett
Sodaro, Joseph Clarence	Med	Aurora
Soenksen, Paul William	Com	Horvey
Somers, Aloystius Joseph	Agr	Kankakee
Somers, Francis Patrick	ChE (SS)	Kankakee
Somers, Russell Ivan	LAS	St. Joseph
Sommers, Ralph Mitchell	Com	Chicago
Sorenson, Carl Severn	SS	Michigan
Sortwell, Harold Haynes	CerE	Indianapolis, Indiana
Soule, Edgar C	SS	San Antonio, Texas
South, Augustus William	LAS	Hammond
Southard, Edna Margaret	SS	Edwardsville
Southcomb, Leslie Spencer	Com	Morris
deSouza, Jacy Tolentino	EE	Brazil
Sowers, Gordon Alfered	Agr	Kingman, Indiana
Spainhour, Alma Marie	LAS	Clinton
Spangenburg, Vernon Floyd	A	White Hall
Spangler, Charles Foskey	Com	Amboy
Sparks, Keith Emanuel	Ch	Connersville, Indiana
Sparling, Clarence Eugene	AE	Osgood, Indiana
Spates, Alfred	ME	Taylorville
Spates, Gladys Mary	HSLAS	Chicago
Spatny, Zdenka	LAS	Rockford
Spear, Helen Eudora	HSLAS	Chicago
Speer, Dallas Moss	AE	Chicago
Speisman, Irvin Gabriel	Agr	Chicago
Spelce, John Edward	LAS	Sycamore
Spencer, Blanche Beebe	Com sp	Vandalia
Spencer, Cynthia Eugenia	LAS	Champaign
Spencer, Ernestine Ellen	LAS	River Forest
Spencer, John Ralph	Com	Geneseo
Spencer, Nora Virginia	Mus sp	Homer
Spencer, Ralph William	Agr	Lawrenceville
Spencer, Stanley Fred	Com	Urbana
Sperry, Ralph Edward	Com	Macomb

Spiegler, Louis	ChE		Chicago
Spink, Phil Marion	Com	33½	Chicago
Spitz, Milton Joseph	Ch	15	Chicago
Sprague, George Chester	Agr	5	Lockport
Sprague, Norman Ellsworth	CE	39	Piqua, Ohio
Springer, George Dusant	Agr	116	Everts, Vermont
Springer, Paul Bliss	SS	6½	Grand Island, Nebraska
Sproull, Raymond Arthur	LAS	64	Mason
Squier, George Kasson	ME	97	Rockford
Sputh, Dr. Carl Brosin	SS		LaCrosse, Wisconsin
Stafford, Edward Emerson	LAS		Allton
Stahl, Walter Andrew	ME	116	Chicago
Stall, Willis Preston	Agr	65	Champaign
Stallings, Eugene Michener	ChE		Danville
Stallings, Samuel Joseph	Com		Amarillo, Texas
Stamas, Theodore Albert	LAS	39½	LaGrange
Stamp, Fred Pfarr	LAS		Wheeling, West Virginia
Stangel, Adelaide Josephine	LAS		Champaign
Stangel, Victor	LAS	41	Champaign
Stanley, Deane Field	Med		Urbana
Stanley, Ethel Marguerite, A.B. <i>(Fairmount Coll.) 1913</i>	Lb		Clearwater, Kansas
Stanley, Leon	Agr (SS)	65	Downers Grove
Stanley, Walter	Com	59	Anderson, Indiana
Stansfeld, James Gillispie	Agr		Lawrenceville
Staples, Alexander Dale	RCE	36	South Bend, Indiana
Staples, John Forest	Agr	33	South Bend, Indiana
Stark, John Wayne	Agr		Nebo
Starkel, Charles Leslie	LAS	29	Belleville
Starkey, Shirley Leland	Agr		Roundswood, West Virginia
Starner, Verner	Ch	100	Carlisle
Starr, Stephen William	LAS		Champaign
Starrett, Robert George	Com		Sheldon, Iowa
States, Mary Louise	LAS	29	Urbana
Stead, Charles Baldwin	CE		Griggsville
Stead, Rowland Wilson	CE		Galva
Steers, William Beeson	LAS		Metropolis
Stefanoff, Nenko	RME		Kotel, Bulgaria
Steigle, Carlton Fred	Agr		Plainfield
Stein, Bertha Marie	HSLAS	34	Blue Island
Steinhoff, Frederick Louis	CerE	72	Chicago
Steinmayer, Alwin Gustave	EE	107	LaSalle
Steinmayer, Reinhard A J	CerE	100	LaSalle
Stejskal, Marie Antoinette	LAS		Chicago
Stephens, Fay	Agr		Springfield, Missouri
Stephens, Gertrude Ethel	SS	100½	Murphysboro
Stephens, Hazel Margaret	HSagr		Champaign
Stephens, Thomas Earl	Agr	65	Champaign
Stephens, William	EE	30	Champaign
Stephenson, Alma Grace	LAS		Chicago
Stephenson, Marvin Schutte	A	69	Green Bay, Wisconsin
Sternaman, Edward Carl	ME		Springfield
Stetson, George Hopkins	Agr		Granville
Steuart, Edward Paul	LAS	12	Harvey
Stevens, Adeline Chapman	LAS		Marietta, Ohio
Stevens, Earl Grover	SS	8	Mackinaw
Stevens, Edith Hasseltine	HSagr	103	St. Louis, Missouri
Stevens, Helen Gordon	LAS	65	St. Louis, Missouri
Stevens, John Grier	ME		Chicago
Stevens, Joseph Hammond	Com		Chicago
Stevens, Marie Felicia	HSLAS	33	St. Louis, Missouri
Stevens, Richard William	Aer	109	Corpus Christi, Texas
Stevens, Robert Gardiner	EE	33	Chicago
Stevens, Vernon Thompson, A.B., 1915	L		Corpus Christi, Texas
Stevens, Wayne McKenzie	Agr	56	Taylorville
Stevens, Wentworth Holt	Agr	110½	Urbana
Stevenson, Ailsie Miller	HSagr	66	Peoria
Stevenson, Dorothy	HSagr	65	Gilman
Stevenson, Elmira Comfort	HSagr		Streator
Stevenson, Fred Luther	A	26½	Galesburg
Stewart, Bessie Jean, A.B. <i>(Indiana Univ.) 1911</i>	Lb		Bloomington
Stewart, Carl Russell	Agr	107	Monmouth
Stewart, Frank	Med	61	Champaign
Stewart, Frank Samuel	Agr	116	Monmouth
Stewart, John Wilson	SS		Sioux Falls, South Dakota
Stice, Kenneth Seymour	CerE	105	Urbania
Stice, Oston Angus	Agr		Waverly
Stidham, Melissa Geneva	Agr		Mahomet
Stiegemeyer, Clara Marie	LAS	12	St. Louis, Missouri
Stienecker, John Alvin	SS	6½	Chicago
Stiles, LeRoy Christie	Com	66	Oak Park
Stillwell, Gennieve Maud	HSagr (SS)	37½	Urbana
Stine, Cleo Edwin	Agr		Stronghurst

Stinson, Rita	<i>HSAgr</i>	96	<i>Champaign</i>
Stipp, Daniel Webster Voorhees	<i>SS</i>	25	<i>Danville</i>
Stiritz, Benjamin Andrew	<i>Agr</i>	33	<i>Murphysboro</i>
Stirton, James Crear	<i>CE</i>	111	<i>Chicago</i>
Stockdale, Thomas Elmer	<i>CE</i>	76	<i>Grand View, Idaho</i>
Stockenberg, Ruben	<i>ME</i>	4	<i>Rockford</i>
Stocker, Harry Frederick	<i>CE</i>	113	<i>Highland</i>
Stocker, Lawrence Orville, B.S., 1912	<i>SS</i>		<i>Pana</i>
Stockton, Dean Bales	<i>ME</i>		<i>Sidell</i>
Stockton, Washington Withrow	<i>Agr</i>		<i>Sidell</i>
Stoddard, George Wellington	<i>AE</i>	69	<i>Milwaukee, Wisconsin</i>
Stoll, Frank Henry	<i>LAS</i>		<i>Chicago Heights</i>
Stoll, Laura Louise	<i>LAS</i>	42	<i>Chicago Heights</i>
Stoltey, Ethel Lynette	<i>HSLAS</i>	28	<i>Urbana</i>
Stone, Albert Getten	<i>AE</i>	113	<i>Chicago</i>
Stone, Charles Arthur	<i>CerE</i>	72	<i>Chicago</i>
Stone, Charles Holmes, M.A. ( <i>Univ. of Georgia</i> ) 1913	<i>Lb</i>	34	<i>Athens, Georgia</i>
Stone, George William	<i>Agr</i>		<i>Potomac</i>
Stone, Pearl Anjanct, B.P.			
( <i>State Normal, Springfield, Mo.</i> ) 1908	<i>Lb</i>		<i>Strafford, Missouri</i>
Stone, William Samuel	<i>LAS</i>		<i>Villa Ridge</i>
Stoner, Loren Norton	<i>Agr</i>		<i>Pittsfield</i>
Stoppel, Fred Herbert	<i>SS</i>	7	<i>Rochester, Minnesota</i>
Storer, Esther Susie	<i>LAS</i>	39	<i>Centralia</i>
Storer, Walter Henry	<i>LAS</i>		<i>Centralia</i>
Storm, Mabel Fern	<i>LAS</i>	25	<i>Morrisonville</i>
Story, Jessie Gertrude	<i>LAS (SS)</i>	51	<i>Urbana</i>
Stouffer, Ernest Lawrence	<i>A</i>	36	<i>Decatur</i>
Stoutenborough, George	<i>Com</i>	35	<i>Marion</i>
Stoutzenberg, Florence Thomas	<i>HSAgr</i>	82	<i>Greenville</i>
Straight, Merton Taunor	<i>Agr</i>	44	<i>Fonda, Iowa</i>
Straight, Ruth	<i>SS</i>	8	<i>Western Springs</i>
Strathern, N Grant	<i>LAS</i>	36	<i>Madison, Wisconsin</i>
Stratton, Bernice Elizabeth	<i>HSLAS (SS)</i>	86	<i>Chicago</i>
Stratton, Grace Bruce	<i>LAS</i>	64	<i>Chattanooga, Tennessee</i>
Straub, Walter Fred	<i>ChE</i>	20	<i>Chicago</i>
Strauch, Donald Jay	<i>REE</i>		<i>Pearl</i>
Strauch, Donald William	<i>SS</i>	8	<i>Champaign</i>
Strawn, Paul	<i>Agr</i>		<i>Jacksonville</i>
Strawn, Robert Emerson	<i>Agr</i>	14	<i>Pleasant Plains</i>
Streed, Felix Lewis	<i>CB</i>	38	<i>Waukegan</i>
Stremmel, George Stephens	<i>Med</i>		<i>Macomb</i>
Stretch, Leuna	<i>Com</i>	31	<i>Newcastle, Indiana</i>
Strickland, Ray Malcolm	<i>Agr (SS)</i>	121	<i>Urbana</i>
Stringer, Joseph Kenneth	<i>Com</i>	57	<i>Chicago</i>
Stroheker, Frank Sewall, A.B., 1915	<i>L</i>	51	<i>Barry</i>
Strong, James Kibbe	<i>Agr</i>	65	<i>Keithsburg</i>
Strong, Jesse Woodford	<i>Agr</i>	34	<i>Canton</i>
Strong, Truman Jefferson	<i>A</i>	88	<i>Spokane, Washington</i>
Strong, William Augustus, A.B., 1914	<i>Agr</i>		<i>Joliet</i>
Strubinger, Joseph Roy	<i>Agr</i>		<i>Sidell</i>
Struever, Carl Chester	<i>Ch</i>	27	<i>Peru</i>
Stubenrauch, Edgar Albert	<i>A</i>	32	<i>Sheboygan, Wisconsin</i>
Stuhr, William	<i>A</i>		<i>Rock Island</i>
Stumpf, Elmer Henry	<i>Com</i>	95	<i>Chicago</i>
Sturm, Clark Henry	<i>EE</i>	34	<i>Elgin</i>
Sukumlyn, Stephen Williams	<i>Med</i>		<i>Kief, North Dakota</i>
Sulger, Alden Harwood	<i>Agr</i>		<i>Terre Haute, Indiana</i>
Sullivan, Edna Frances	<i>HSLAS</i>		<i>Champaign</i>
Sullins, Thomas Byrns	<i>SS</i>	7	<i>Lebanon</i>
Summitt, James Levi	<i>LAS (SS)</i>	7	<i>Pesotum</i>
Sun, Eu-lin	<i>Agr</i>	46	<i>Kiangsu, China</i>
Sundell, Roy Dehm	<i>ME</i>	107	<i>Oneida</i>
Sunderland, Glenn Henderson	<i>Agr</i>		<i>Golden Gate</i>
Sutcliffe, Constance	<i>LAS (SS)</i>	43	<i>Urbana</i>
Sutcliffe, Dorothy	<i>LAS (SS)</i>	96	<i>Urbana</i>
Sutherland, Harold Hoyle	<i>Agr</i>	29	<i>McNabb</i>
Sutherland, Wilbur Mills	<i>Agr</i>	102	<i>McNabb</i>
Sutton, Frank Howard	<i>Com</i>	100	<i>Chicago</i>
Sutton, Nora	<i>LAS</i>	33	<i>Oakland</i>
Sutton, William Henry	<i>LAS</i>	43	<i>Washington, D. C.</i>
Svitavsky, Robert Ingersoll	<i>EE</i>		<i>Racine, Wisconsin</i>
Swaim, Donald Tyler	<i>Com</i>	59	<i>Danville</i>
Swaim, Earle Frank	<i>LAS</i>	14	<i>Chicago</i>
Swanberg, Edmund DeForest	<i>EE</i>	36	<i>Worthington, Minnesota</i>
Swanberg, Marion Goerz	<i>HSLAS</i>	33	<i>Chicago</i>
Swanson, Frances Eleanor	<i>LAS (SS)</i>	98	<i>Urbana</i>
Swanson, Norvid Raymond	<i>Agr</i>	105	<i>St. Charles</i>
Swartwout, Edgar Chessman	<i>Agr</i>	102	<i>Elgin</i>
Swartwout, Nelson Rudolph	<i>LAS</i>		<i>Elgin</i>
Swartz, Fay Wood	<i>Mus</i>	73	<i>Urbana</i>
Swarm, Geraldine	<i>SS</i>	21	<i>Normal</i>
Swarm, Paula	<i>SS</i>	7	<i>Normal</i>

Swearingen, Paul Van	ME	Champaign
Sweeney, Arthur Frantz	Com	Chicago
Sweet, Orville Roberts	Agr	Sherman
Swenson, Carl Elmer	ME	Chicago
Swenson, Ebenezer Earl	ME	Lindsborg, Kansas
Swett, Courtland Ritchie	Agr	Chicago
Swett, Lewis Wentworth	EE	Springfield
Swick, Curvelia H.	Com	Galton
Swick, Mary Ethel, A.B., 1915	LAS	Urbana
Swift, Nellie May	LAS (SS)	Urbana
Swift, Gertrude Lucile	HSLAS	Streator
Swigart, Alta Caroline, A.B., 1910	Lb	Champaign
Swigart, Blanche Belic	SS	Rapatee
Swigart, Faith Gretchen	LAS	Champaign
Swindler, Henry	Com	Magnolia
Swindler, Rollin Leland	Agr	Magnolia
Swits, Marguerite Maud	LAS	Terre Haute, Indiana
Swormstedt, Leroy	RME	Urbana
Taggart, Clementine	LAS	Wooster, Ohio
Taggart, John Findlay	Agr	Wooster, Ohio
Tai, Fang Lau	SS	Shase, China
Talbot, James	Agr	Sterling
Talbot, Rachel Harriet	LAS	Urbana
Taliaferro, Marguerite	SS	Watska
Tallmadge, Chester Livingstone, Jr.	LAS	New York City
Tang, Sung	SS	Changsha, China
Tanner, John Riley	SS	Flora
Tanner, Thomas Sheridan	AE	Dwight
Tanton, Glenwood Charles	Agr	Washington
Tarbox, Robin James	Agr	Urbana
Tatsch, Walter Karl	CE	Chicago
Taubeneck, Victor Everett	EE	West Union
Taulbee, Horton Mills	Agr	Hillsboro
Taylor, Amos Lovejoy	SS	Farmersburg
Taylor, Benjamin Franklin	LAS	Lacon
Taylor, Edwin George	Com	Burlington, Iowa
Taylor, Grace DeFete	HSAgr (SS)	Westplains, Missouri
Taylor, Inglis Mitchell	Ch	Harrisburg
Taylor, Kathleen	HSLAS	Harrisburg
Taylor, Laurence Righter	Ch	Indianapolis, Indiana
Taylor, Loren Emmerson	L	Danville
Taylor, Max	LAS	Pryor, Oklahoma
Taylor, Norris Onslow	Che	Geneseo
Taylor, Ross	LAS sp	Carrier's Mills
Taylor, Ross Wallace	LAS	Bement
Taylor, Roy H.	Agr	Bismarck
Taylor, Thomas C	Agr	West Plains, Missouri
Teeters, Mary Etta	HSLAS	Auburn, Indiana
Teixeira, Emilio Alves	MnE (SS)	Cassia, Minas, Brazil
Temple, Jane	SS	Page's Mills, South Carolina
Tendick, Frank Hulit	Che	Canton
Tener, Katherine Randall	LAS	East Cleveland, Ohio
Terry, Mead Mechan	Com	Chicago
Terry, Robert Byron	Ch	Girard
Terry, Robert Isaac	Agr (SS)	Indianapolis, Indiana
Thacker, Charles Brooks	Agr	Vicuna
Thal, Adolph Friederich	Che	Champaign
Thal, Olga Elizabeth	LAS (SS)	Champaign
Thatcher, Frederick Robert	Com	Elgin
Thiele, Joel Baker	EE	Ramsey
Thiele, Ross Henry	A	Ramsey
Thielemann, William Carl	CE	Chicago
Thies, Walter Fred	Com	St. Louis, Missouri
Thomas, Abner Royce	Agr (SS)	Big Rock
Thomas, Clair Joel	Agr	La Harpe
Thomas, Elizabeth	LAS sp	Paxton
Thomas, Glen Herbert	A	Waterville, Kansas
Thomas, Grace	Mus	Weldon
Thomas, Harold Dewey	Agr	Bisbee, Arizona
Thomas, Harry A.	Agr	Rockford
Thomas, Joe Lee	Agr	Charleston, West Virginia
Thomas, John Theron	LAS	Bellefonte
Thomas, Maurice Loyd	EE	St. Louis, Missouri
Thomas, Nelson Keno	Com	St. Louis, Missouri
Thomas, Polly Elizabeth	HSLAS (SS)	Big Rock
Thomas, Ralph Raymond	EE	St. Louis, Missouri
Thomas, Royle Price	Agr	Sullivan, Indiana
Thomas, Stanley Jeremiah	MSE	Vincennes, Indiana
Thomas, Theodore Gladstone	A	Chicago
Thomason, Pauline	SS	Quincy
Thompson, Alice A.	LAS	Garrett, Indiana
Thompson, Fred Leo	LAS	Kankakee
Thompson, George S.	Com	Chadwick
Thompson, Guy Holsinger	SS	Tiskilwa
Thompson, Harold Henry	Com	

Thompson, Herle Allen	<i>Agr</i>	White Heath
Thompson, Lillian Maud	<i>HSLAS</i>	Chicago
Thompson, Marvin Waterbury	<i>LAS</i>	Chicago
Thompson, Orlando Stephen	<i>Agr</i>	Harvey
Thompson, Russell Hopkins	<i>Com</i>	Sullivan, Indiana
Thompson, William Charles	<i>A</i>	Indianapolis, Indiana
Thompson, William Lewis Voris	<i>LAS</i>	La Rose
Thompson, William McKinley	<i>Med</i>	St. Louis, Missouri
Thompson, Willis Jr.	<i>Com</i>	Fulton
Thomsen, Marvin William	<i>LAS</i>	Rockville, Indiana
Thomson, William White	<i>Agr sp</i>	Rollo
Thor, Alfred Ulmo	<i>LAS</i>	Berwyn
Thorncroft, Frank Hilton	<i>Agr</i>	Urbana
Thornburgh, Zada Goff	<i>LAS (SS)</i>	Indianapolis, Indiana
Thornton, Maurice Emerson	<i>A</i>	Rochelle
Thorpe, William Walter	<i>AE</i>	Chicago
Thorud, Bert Marshall	<i>LAS (SS)</i>	Chicago
Thory, Hans Christian	<i>Agr</i>	Decatur
Threlkeld, James Graydon	<i>Agr</i>	Dunlap
Threshie, Robert David	<i>Agr</i>	Lynn, Massachusetts
Thurlow, Henry Plummer	<i>Agr (SS)</i>	Champaign
Thurston, Alfred William	<i>Med</i>	Chicago
Thurston, Alvin Stewart	<i>AE</i>	Peoria
Ticknor, James Hotchkiss	<i>Agr</i>	La Grange
Tiffany, Hubert Chassée	<i>Agr</i>	Walsherville
Tiffin, Joseph Dow	<i>LAS</i>	Roswell, New Mexico
Tillotson, Clara Eva	<i>LAS</i>	Roswell, New Mexico
Tillotson, Ella A.	<i>Ch</i>	Naperville
Tillson, Vivian Earle	<i>Agr</i>	Hooperston
Tilton, James Frederic	<i>Ch</i>	Fairmount
Tilton, Walter Joseph	<i>Agr</i>	Manistee, Michigan
Timmerman, Frederic Harris	<i>EE</i>	Decatur
Tinkey, Otto George	<i>LAS</i>	Pekin
Tinney, Loraine Henrietta	<i>Com</i>	Normal
Tobias, Frank	<i>SS</i>	Clay City
Todd, Clyde L.	<i>LAS</i>	Oklahoma City, Oklahoma
Todd, Dana Lee	<i>SS</i>	Carlyle
Todd, Malcolm Newton	<i>Agr</i>	La Harpe
Todd, Ralph Dawson	<i>SS</i>	
Todd, Vincent Hollis, A.B. (Harvard) 1907, A.M., 1910, Ph.D., 1912	<i>ME</i>	Greenville
Toll, Arno William	<i>AE</i>	Chicago Heights
Tolmie, Thomas William	<i>Agr (SS)</i>	Manchester, Iowa
Tombaugh, Glen Dech	<i>Agr</i>	Pontiac
Tomlin, Harry Capps	<i>LAS</i>	Pleasant Plains
Tompkins, Ralph Hawthorne	<i>CerE</i>	Eagle Grove, Iowa
Tompkins, Roy Woodruff	<i>LAS</i>	Joliet
Tong, Teh-Chiang Yee-Cheng	<i>CE</i>	Hunan, China
Toothaker, Harry Hawkins	<i>HSLAS</i>	Sandoval
Tornquist, Alpha Caroline	<i>SS</i>	Champaign
Torrence, Frank H.	<i>AE</i>	Hanover
Torrence, Franklin Albert	<i>LAS</i>	Chester
Towe, Harold Theodore	<i>LAS</i>	Toledo, Ohio
Tower, Alexander McJunkin	<i>REE</i>	Fort Wayne, Indiana
Tower, Carleton Myron	<i>Com</i>	Beloit, Wisconsin
Townsan, George Leland	<i>AE (SS)</i>	Urbana
Townsend, Mary Wilson	<i>SS</i>	Wyoming
Townsend, Mildred Lorene	<i>Mus</i>	Champaign
Towson, Irene	<i>LAS</i>	Macon
Tracy, Elizabeth Lail	<i>HSLAS</i>	Anderson, Indiana
Tracy, Paul Hubert	<i>Agr</i>	Paris
Traxler, Elinor Evangeline	<i>Com</i>	Urbana
Traxler, Ivan W.	<i>Agr</i>	Urbana
Treat, Edna Almeda, B.Mus. (Oberlin Conservatory) 1910	<i>Mus</i>	Oberlin, Ohio
Treat, Gladys Annie	<i>HSagr</i>	Oberlin, Ohio
Treichel, Chester	<i>CerE (SS)</i>	Kankakee
Trelease, Sidney Briggs	<i>Com</i>	Urbana
Trenchard, Wilma	<i>LAS</i>	Hardin, Missouri
Treu, Max Rudolph Hendrick	<i>Agr</i>	Johannesburg, South Africa
Trickle, Lenox Edmond	<i>AE</i>	Rantoul
Tritt, Frances Irene	<i>HSLAS</i>	Pontiac
Troeger, Philip Theodore	<i>Agr</i>	Storm Lake, Iowa
Trost, Opal Winifred	<i>HSagr</i>	Urbana
Troster, Marion Collier	<i>Com</i>	Bellflower
Troster, Oliver John	<i>Agr</i>	Bellflower
Trout, Clement Eddy	<i>Agr (SS)</i>	Urbana
Troutman, William Chilton	<i>LAS</i>	Carl Junction, Missouri
Trowbridge, Charles Edgar	<i>MSE</i>	South Bend, Indiana
Trowbridge, William Oliver	<i>Agr</i>	South Bend, Indiana
Troxel, Floyd Elsworth	<i>ME</i>	Minonk
True, Leighton Jay	<i>Com</i>	El Cajon, California
Trumbo, Silas Max	<i>AE</i>	Pontiac
Tucker, Gladys May	<i>Com</i>	Highland Park

Tucker, Gustave Morton	CerE	72	Chicago
Tucker, Rolland Henry	Agr	33	Minonk
Tucker, William Henry	ChE		Morrison
Tudor, Herbert Ovando	SS	6½	Holton, Kansas
Tuell, Wallace Gerry	EE	75	Canton
Tukey, Harold Bradford	Agr	33	Berwyn
Tupper, James Oliver	Agr (SS)	107½	Woodstock
Turley, Harold Edwin	Agr	33	Burney, Indiana
Turnbull, Clifford Griffith	Agr		Champaign
Turner, Alexander Harvey	Agr	70	Loda
Turner, Charles Edward	LAS	71	Sterling
Turner, Chester Charles	Agr	70	Champaign
Turner, Frank, A.B., 1914	SS		Du Quoin
Turner, George Lewis	LAS		Chicago
Turner, Harold Horton	ME	14	Chicago
Turner, James Craigmire	Agr	34	Loda
Turner, James Marion	SS	8½	Lovington
Turner, Luther Martin	EE	52	Beardstown
Turner, Merle Bernice	LAS		Champaign
Turner, Wayne Isaac	Agr		Urbana
Turnquist, Elmer Nels	LAS	27	Canton
Turnquist, Ivar William	Agr	34	Chicago
Turpin, Charles Udell	Com		St. Louis, Missouri
Tuthill, James Pierce	CE (SS)	61	Elgin
Tuttle, Charles Asa	EE		Momence
Tuttle, Charlotte	A		Wilmette
Tuttle, LeRoy Hammond	Com		Oak Park
Tweedie, Norman James	LAS		Wheaton
Twells, Robert	CorE		Walnut Hill
Twomey, Thomas Leo	SS	6½	Douglas, Arizona
Tyler, James Hersey	CE (SS)	70	Urbana
Tyler, Miriam Streator, A.B. (Western Reserve Univ.) 1915	Lb		Richmond
Unger, George Walter Adolph	A	35	Oak Park
Urban, Arthur Jules	Ch		DuQuoin
Urban, Lottie Octavia	HSLAS	111	DuQuoin
Ursich, Joseph Edward	Med	25	Joliet
Utley, Nelson Monroe	Com	33	Chicago
Utter, Henry Benjamin	AE	36	Missoula, Montana
Vail, Edna Cora	HSLAS		Chicago
Valentine, Frank Wayne	Ch	32	Mt. Vernon
Valentine, George Snow	Com	32	Evanston
Van Cleave, Bruce	LAS	64	Springfield
Van Cleave, Wallace	Agr	32	Springfield
Vanden Boom, Gerry Christopher	ME	104	Quincy
Vanden Boom, Leona Margarete	Mus sp		South Bend, Indiana
Vanden Bosch, James Walter	Agr		Morris
Vanderpool, Arthur Merritt	Com	33	Evanston
Van Deusen, Arthur Stowe, Jr.	CE	19	Greenville
Van Deusen, John Leroy	ME		Decatur
Van Deventer, Frank Macknet	AE		Mt. Sterling
Vandeenter, Fenton Ross	Agr		Springfield
Van Dorn, Theodore Joseph	LAS	29	Plainfield
Van Dyke, Earl Henry	Agr	69	Rialto, California
Van Frank, Elliott Dudley	A	104½	Kent, Ohio
Van Horn, William Henry	AE		Jerseyville
Van Horne, George Hamilton	Agr		Mattoon
Van Meter, Craig	L	28	Gaston, Indiana
Van Natter, Francis Marion	LAS (SS)	102	Urbana
Vanneman, Russell William	Com	20	Decatur
Van Praag, Alex Jr.	CE	63	Decatur
Van Praag, Solomon	CE	44	Philadelphia, Pennsylvania
Vansant, Rodman Fleming	Agr	98	Roanoke, Virginia
Van Sickler, John Russell	CB	35½	Chicago
Van Winkle, Paul Keith	Com	65	Henderson, Kentucky
Van Winkle, Stephen Neel	A	22	Paris
Varner, Joe Woodyard	Agr	24	Delavan
Varney, Clara Elsie	HS Agr		Amboy
Vaughan, Fred Nathan, Jr.	Agr	32	Urbana
Vaughn, Elizabeth Kate	SS	4	Urbana
Vaughn, Howard Flagn	AE (SS)	32	Urbana
Vaughn, Myra	HSLAS (SS)	196	Urbana
Vaughn, Rufus Emerson	Agr	17½	St. Louis, Missouri
Vaught, Sallie McCormick, A.B. (Ohio Wesleyan Univ.) 1908	Lb		Lebanon, Indiana
Vear, Leonard Ray	Agr	34	Chicago
Vedder, Earl Charles	LAS	65	Gaspert, New York
Veirs, Willard Lewis	Med (SS)	35	Urbana
Venable, Harold Livingston	ME		East St. Louis
Vernon, Edith	SS	8	Toledo
Vernon, Maris Hurford	CE	75	Moline
Vial, Harold Craigmire	Agr	33	La Grange
Vial, Helen Gertrude	HSLAS	7½	La Grange

Vial, Ralph Hoyt	<i>Agr</i>	100	<i>La Grange</i>
Vibelius, Siegfried Nathaniel	<i>A</i>	109	<i>Joliet</i>
Vidal, Stephen	<i>MSE</i>		<i>Gallup, New Mexico</i>
Vissering, Eckhart Bernhard	<i>LAS</i>	32	<i>Minonk</i>
Vliet, Elmer Bennett	<i>ChE</i>	29	<i>Joliet</i>
Voeks, Forrest	<i>Com</i>	35	<i>Rockford</i>
Vogele, Alfred Charles	<i>Agr</i>	34	<i>Assumption</i>
Voight, Herbert Louis	<i>CE (SS)</i>	114	<i>Chicago</i>
Voight, Marie Louise	<i>Mus</i>		<i>Athens, Ohio</i>
Volk, William Joseph	<i>CE</i>	33	<i>Chicago</i>
Volstorff, Fred Albert	<i>ME</i>	30	<i>Elgin</i>
Von Fossen, Cyril Hill	<i>Med</i>		<i>Beardstown</i>
Von Ohlen, Floyd William George	<i>Agr</i>		<i>Hinckley</i>
Voorhees, Evangeline	<i>LAS</i>		<i>Upper Alton</i>
Voorhees, Lawrence Elmer	<i>LAS</i>	103	<i>Alton</i>
Voorhees, Vanderveer	<i>LAS</i>	12	<i>Alton</i>
Vopicka, Fred Frank	<i>AE</i>	61	<i>Chicago</i>
Voss, Anna	<i>Mus</i>	51	<i>Champaign</i>
Waddington, Glenn George	<i>ME</i>	77	<i>Dewey</i>
Wade, Elizabeth	<i>HSAgr</i>	76	<i>Emporia, Kansas</i>
Wadleigh, Theodore	<i>Agr (SS)</i>	42	<i>Herscher</i>
Wadsworth, Goldie May	<i>LAS</i>	61	<i>Connersville, Indiana</i>
Waggoner, Karl Marshall	<i>A</i>	78	<i>Decatur</i>
Wagner, Charles Arthur, Jr.	<i>EE</i>	35	<i>Springfield, Missouri</i>
Wagner, Frank Hans	<i>Agr</i>		<i>Rockford</i>
Wagner, Leo Ernest	<i>Agr</i>		<i>Rock Island</i>
Wagner, Wesley Gephart	<i>Agr</i>		<i>Bellefonte, Pennsylvania</i>
Wagner, Winton A.	<i>Com</i>		<i>Anderson, Indiana</i>
Wagstaff, Charles Dudley	<i>Agr</i>	48	<i>Tyson, Indiana</i>
Wahl, Leo Jacob	<i>EE (SS)</i>	38	<i>Sterling</i>
Wait, Bernice	<i>SS</i>		<i>Greenville</i>
Wakefield, Mildred Amy	<i>LAS</i>		<i>Lake Benton, Minnesota</i>
Wakeland, Fred Raymond	<i>Agr</i>	28	<i>Hooperston</i>
Wakeland, Guy Earl	<i>Agr</i>	62	<i>Hooperston</i>
Wakely, John Everett	<i>SS</i>	8	<i>Danville</i>
Waldie, Benjamin Dickeson	<i>Agr</i>		<i>Chicago</i>
Walbo, Abner Weston	<i>Com</i>	66	<i>Libertyville</i>
Waldo, John Hardenbergh	<i>CerE (SS)</i>	9	<i>Urbana</i>
Walk, Marney Lawrence	<i>LAS</i>		<i>Champaign</i>
Walker, Charles E.	<i>Med</i>		<i>Chicago</i>
Walker, Clifton James	<i>CE</i>	116	<i>Chicago</i>
Walker, Elliott Pyle	<i>Com</i>		<i>Butler, Missouri</i>
Walker, Frank Abram	<i>Agr</i>	63	<i>Aurora</i>
Walker, George William	<i>Agr</i>	105	<i>MacKinac</i>
Walker, Helen	<i>HSLAS</i>	32	<i>Clinton</i>
Walker, Jennie Grace	<i>LAS (SS)</i>	97	<i>Cicero</i>
Walker, John Urquhart	<i>Com</i>		<i>South Bend, Indiana</i>
Walker, Mae Ella	<i>HSLAS</i>	30	<i>Aurora</i>
Walker, Michael W., B.S. <i>(Knor Coll.) 1901</i>	<i>SS</i>		<i>St. Louis</i>
Walker, Nelle	<i>LAS</i>	31	<i>Carterville</i>
Walker, Stanton	<i>MSE</i>	73	<i>Champaign</i>
Walkerly, Margaret Magdalene	<i>Com</i>	62	<i>Champaign</i>
Wall, Harriet Edythe	<i>LAS</i>	76	<i>Staunton</i>
Wall, Richard Clark	<i>Com</i>		<i>Summitville, Indiana</i>
Wallace, Edgar Dearborn	<i>Com (SS)</i>	85	<i>Chicago</i>
Wallace, Lewis Bryant	<i>EE (SS)</i>	96	<i>Homer</i>
Wallace, Paul Samuel	<i>Agr</i>	26	<i>Savanna</i>
Wallace, Samuel Haywood	<i>SS</i>		<i>Oak Park</i>
Wallage, Stanley Tiffin	<i>LAS</i>	130	<i>Paris</i>
Wallin, Marie Elizabeth	<i>Com</i>	65	<i>Champaign</i>
Walmer, Joseph Charles	<i>CE</i>	66	<i>Cairo</i>
Walraven, Wesley Burnham	<i>Agr</i>	106	<i>Centralia</i>
Walser, Stephen Albert	<i>EE</i>	82	<i>Brooklyn, New York</i>
Walsh, Earl Joseph	<i>SS</i>	37	<i>La Crosse, Wisconsin</i>
Walsh, John Edward	<i>EE</i>	88	<i>Peoria</i>
Walsh, Leo Bernard	<i>Agr</i>	69	<i>Rantoul</i>
Walters, Prentice	<i>SS</i>	135	<i>Macomb</i>
Walton, Howard Roberts	<i>Com</i>	65	<i>Champaign</i>
Walton, James Kelley, Jr.	<i>Agr</i>	88	<i>Anna</i>
Walworth, Stanton Eugene	<i>Com</i>	30	<i>Urbana</i>
Walz, Ida Emilie	<i>Agr</i>	85	<i>Danville</i>
Wamsley, Adalaid May	<i>LAS</i>	85	
Wang, Chin Wu	<i>HSAgr (SS)</i>	34	<i>Quincy</i>
Wang, Te Chang	<i>Agr (SS)</i>	12	<i>Honan, China</i>
Wanzer, James Marshall	<i>Agr (SS)</i>	120	<i>Soochow, China</i>
Warbritton, Hattie	<i>Agr</i>	109	<i>Oak Park</i>
Ward, Amy	<i>SS</i>	4	<i>Ladoga, Indiana</i>
Ward, Arthur Andrew	<i>HSLAS</i>	98	<i>El Paso</i>
Ward, Cecelia Blair	<i>EE</i>		<i>Oak Glen</i>
Ward, Frank Howard	<i>LAS</i>	38	<i>Urbana</i>
Ward, Herbert Benjamin	<i>Agr</i>	30	<i>Dewey</i>
Ward, Janet	<i>Agr</i>		<i>Geneseo</i>
Ward, Mary Helen	<i>HSLAS</i>	18	<i>Chicago</i>
Ward, Mary Myrtle	<i>HSAGr</i>		<i>Sterling</i>
	<i>SS</i>	25	<i>Glasgow</i>

Ward, Mary Winifred	LAS	33	Saybrook
Ward, Raymond Lee	Com		Bement
Ward, Thomas Harrison	EE		Roslindale, Massachusetts
Ward, Victor	CE		El Paso
Ward, William Dutch	Com		Decatur
Wardhaugh, Sarah Edna	SS	8	Jacksonville
Ware, Gay Hollenbeck	Agr		Barry
Ware, Manierre Barlow	Agr	73	Kenilworth
Warford, David Arthur	Com	41	Elizabethtown
Warmols, Cornelia Sara	HSLAS	22	Oregon
Warmols, Earl Hugh	Med		Oregon
Warmols, Lambertus, Jr.	Med	65	Oregon
Warner, Robert L.	L		Dixon
Warnock, Harper McDill	Agr	119	Little York
Warnock, Laura Ream	SS	9	Remington, Indiana
Warnhuis, Edward John Henry	Com	30	Oak Park
Warren, Daniel Edwin	Agr	73	Belvidere
Warren, Dorothy	HSLAS		Watseka
Warren, May Anna	LAS		Mansfield
Warren, Paul Wilbur	Ch	34	Fort Wayne, Indiana
Warren, Ralph Rowe	CE	30	La Salle
Wascher, Herbert Frederick	Agr		Champaign
Washburn, James William	MSE	67	Lenox Dale, Massachusetts
Wasson, Lorin Arthur	Com	22	Harrisburgh
Waterman, Louise Hale	LAS	60	Chicago
Waters, George Gerald	EE		St. Louis, Missouri
Watkins, Beulah	SS	5	Danville
Watson, Harry Francis	Ch	66	Granite City
Watson, John Wesley	Agr	110	DeKalb
Watson, Lelia Elta	HSLAS (SS)	96	Champaign
Watson, Ray Marcus	Agr	66	Cobden
Watt, Russell A	AE (SS)	32	Champaign
Watts, Amos Holston	LAS		Nashville
Watts, Helen Mae	HSLAS		Urbana
Wead, De Forest Emery	CE	68	Peoria
Wead, John Trimmer	Med	34	Wyoming
Weart, James Garrison Jr.	Agr		Winnetka
Weaver, Lillian R.	LAS		
Webb, Brent Girdler	A		Louisville, Kentucky
Webb, Donald Frederick	Agr	30 $\frac{1}{2}$	Chicago
Webb, Jasper Kent	Agr	154	Niota
Webb, Katharine Ann	LAS		Chicago
Webb, Lina	SS	9	Ewing
Webb, William Robert	SS	1 $\frac{1}{2}$	Granite City
Webber, Albert G	L	28	Decatur
Webber, Harry Edwin	AE	144	Chicago
Webber, Robert Alfred	ChE	28	Urbana
Weber, Frederick Gottlieb	Agr		Tower Hill
Weber, Gertrude T	LAS	114	Olney
Weber, Leonard Fred	Med	27	Buckley
Webster, Frederick Farrar	Agr	66 $\frac{1}{2}$	Oberlin, Ohio
Webster, Gladis Gilbert	Agr	64	Washington, Indiana
Webster, Lewis Selwyn	MSE	21 $\frac{1}{2}$	Bartow, Florida
Wedge, Leslie B	Com	30	Kewanee
Weeks, Charles Horace	Com	34	Joliet
Weems, Charles Lee	LAS	46	Quincy
Weenink, Ruth Antoinette	HSagr	66	Dillon, Montana
Wehrle, Frank Ignatius	Agr	66	Carmi
Wehrle, Thomas Henry	Com		Carmi
Weil, Ruth Carmen	LAS	66	Oelwein, Iowa
Weilepp, Laura Elizabeth	HSLAS	61 $\frac{1}{2}$	Decatur
Weiler, Edward Grover	EE	148	West Salem, Ohio
Weinberg, Elizabeth	HSagr	64	Rushville
Weinberg, Flora Jane	SS	130	Rushville
Weingarten, Helen Henrietta	LAS		Champaign
Weinskank, Harry	ME		Indianapolis, Indiana
Weir, Amy Azalea	HSLAS (SS)	23	Marshall
Weir, Pearl	HSagr	31	Marshall
Weise, Nicholas George	Agr	30	Chicago
Weisiger, George Bates, LL.B., 1911	SS		Homer
Weiss, Della	LAS	62	Chicago
Weiss, Marion Virginia	LAS	78	Champaign
Welch, Donald Louis	LAS		Fort Collins, Colorado
Weller, Herbert Clay	LAS	3 $\frac{1}{2}$	Hindsboro
Wells, Harry Andrew	Agr	62	Dalton, Pennsylvania
Welsh, Kathryn Clare	HSLAS	22	Bradford
Welsh, Robert Patrick	Agr		Bradford
Welty, David Charles	Agr	65	Amboy
Welty, Duncan Oliphant	Agr	30	St. Louis, Missouri
Wenke, Vernon Arthur	Com		Geneseo
Wensley, Lucy Drinkwater	LAS		E. Cleveland, Ohio
Wenzlaff, Solomon Henry	LAS		Yankton, South Dakota
Wesseling, Amalie Elizabeth	LAS		St. Louis, Missouri
Wessels, Marie	Med	33	Quincy

West, Charles Aron	SS	5	Cherokee, Iowa
West, Linnie Minnie	LAS	60	Watseka
West, Lloyd Alvin	EE	29	Yates City
Westhay, James Herron	RME	83	Monett, Missouri
Westbrook, Harold William	Com	32	Centralia
Westenhaver, LeRoy John	MnE	33	Chicago
Westerberg, Glenn Lambert	LAS		Moline
Westerman, Rodolpho G.	REE	24	Curybyba, Brazil
Westlund, Emil Hjalmer	Com	95	Chicago
Westman, Adolph Fred	ME	25	Winona, Minnesota
Weston, Jessie Beatrice (Ph.B. Univ. of Chicago) 1907	Lb	33	Urbana
Westphal, Betty Marie	SS	8	Belvidere
Whalen, Oren Leslie	Agr	23	Rose Hill
Wham, Benjamin, A.B., 1915	L	32	Carter
Wharton, Wayne Thompson	Com		Moline
Wheat, Marcell Henry	Com		Chicago
Wheaton, Hazel Dean	LAS	95	Galesburg
Wheeler, Adelaide Cynthia	HSagr	67	Lawrens, Iowa
Wheeler, William Erastus, Jr.	L	42	East St. Louis
Wheelhouse, Elizabeth Lux	HSLAS	31	Decatur
Wheelhouse, Mary Elizabeth	LAS	97	Decatur
Wheelock, Earle Nathaniel	Agr	55	Wilmette
Whipple, Helen Katherine	LAS	99	Medina, New York
Whisenand, Helen Grace	LAS		Harvard, Nebraska
Whitacre, Elson Harmon	AE	29	Chicago
Whitchurch, Helen Margaret	HSagr	99	Salem
White, Agnes Chloe	HSLAS	63	Marion
White, Catherine Nell	Mus	33	Urbana
White, Frank Herbert Jr.	EE	110	Chicago
White, George Richard	AE	107	Buffalo, New York
White, Grace Belle	SS	37½	Rantoul
White, Harold Hartwell	Com	33	Chicago
White, Lyde Evangeline	Com (SS)	85	Urbana
White, Marion Kingsley	HSagr	64	St. Joseph, Missouri
White, Merla Marie	HSagr		Urbana
White, Orville Oscar	SS	60	Carlinville
White, Phares Lemar	RME (SS)	112	Oxford, Indiana
White, Ralph Hugh	SS		Davenport, Iowa
White, Russell Sherman	Com	30	Chicago
White, W. Powers	Agr		LeRoy, Kansas
White, William Wallace	Com		Chicago
Whitelaw, Arthur Keith Jr.	LAS	23	Wood River
Whitford, Hobert S.	Agr		Clayton
Whiting, Vivian Justina	HSLAS	66	Urbana
Whitley, Guyon Carl	Com	99	Webster City, Iowa
Whitman, George Bruington	Agr	16½	Cameron
Whitmire, Clarence Leonard	SS	68½	Urbana
Whitnel, Joe	L	58	East St. Louis
Whitney, Harold Bruce	CE		Silver Spring, Maryland
Whitney, Joseph Lafeton	Com	65	Oak Park
Whitney, Leonard Hilliard	MnE	75	Downers Grove
Whitney, Wayne K.	SS	5	Champaign
Whitson, Herman Ansel	EE	23	Rushville
Whittemore, Kenneth Stoddard	Com	46	East Aurora, New York
Whitten, Jennie Alma	SS	81½	De Kalb
Whitten, Mabel	SS	2	De Kalb
Whitten, Myrtle	SS	8½	Fillmore
Whittington, Ray Norton	Agr		Benton
Whittum, Florence Lucille	HSLAS		Herscher
Whitver, Howard Clifford	Com	31	Urbana
Wible, Tom	Com		Mason City
Widdis, Annie Laurie	SS	4	Detroit, Michigan
Wieboldt, Anna Ernestine	HSLAS	37	Chicago
Wiedemann, Newell Evert	A	31	East St. Louis
Wiersema, Henry	EE		Fulton
Wiese, Alvin Otto	LAS	35	Chicago
Wiggins, Kelley	EE		Anna
Wiggins, Rolla Elbert	SS	8½	Goreville
Wight, Edith Marian	LAS	32	Chicago
Wikoff, Ruth Isabel	LAS		Austin, Chicago
Wilcox, Fannie Miles	SS		Georgetown, Texas
Wilder, Charles Lucas	ME		Peoria
Wilder, Joseph David	Com		Decatur
Wildermuth, Joe Henry	A		Champaign
Wiles, Bertha Harris	LAS	65	Kansas City, Missouri
Wiley, Harry Houghes	CE	70	Sioux City, Iowa
Wiley, Robert Ernest	ME	108	Warren
Wiley, Russel Warren	AE		Chicago
Wiley, Wallace Faris	EE		Anna
Wilford, Robert Nicholas	Agr	66	Aurora
Wilhite, George Merrill	Med		Greenfield
Wilkins, Ernest Jesse	LAS	35½	Farmington, Missouri
Wilkins, Stanley Charles	Agr	64½	Chicago

Wilkinson, Wardell	Com	35	Chicago
Willard, Dora Alta	LAS		Urbana
Willcockson, John Robert	SS		Fillmore
Willey, Gilbert Stewart	Agr	15½	Warren, Minnesota
Williams, Beulah Naomi	LAS	31	Hume
Williams, Chester Albert	A	70	Sterling
Williams, Eugene Charles	Com		Sterling
Williams, Floyd Earl	ME	56	Rockford
Williams, George Alfred	LAS	33	Peoria
Williams, Grace Ethel	LAS		Watseka
Williams, Irene	HSagr	22	Ravanna, Missouri
Williams, John Milton	LAS	34	Dixon
Williams, Leslie Albert	Agr	33	Ava
Williams, Margaret Stuart, A.B. (Univ. of Texas) 1912	Lb (SS)	59	Hamilton, Texas
Williams, Marie Effie	SS		Marion
Williams, Oswald Howell	A (SS)	14	Granite City
Williams, Richard Kimball	Agr sp		Chicago
Williams, Walter Emmett	Med		Nattieville, Arkansas
Williams, William Howard	Agr		Henry
Williamson, Edna Goldman	SS		Tuscola
Willits, Ward Maurice	Com	35	Harvey
Willmarth, Clarence Alfred	Com (SS)	36	Atlanta, Georgia
Willooughby, June Washburne	HSLAS		Kewanee, Indiana
Wills, Mary Etta	SS	131	Watseka
Willson, Harold Edwin	MnE (SS)	102	Baltimore, Maryland
Wilson, Alfred David	Agr	100	McNabb
Wilson, Allen Center	CE	71	La Grange
Wilson, Clarence Leon	Med	31	Carbondale
Wilson, Ewing	SS	4	Decatur
Wilson, Grover C	EE	71	Walnut
Wilson, Helen May	LAS	113½	Chicago
Wilson, Isabella Chilton	HSLAS (SS)	103	Arbuckle, West Virginia
Wilson, Lyle Avery	CE	35	Hamburg
Wilson, Lyndon Rutledge	EE	16	Chicago
Wilson, Ralph Oliver	Agr	30	McNabb
Wilson, Ray Walker	Com (SS)	39	Princeton, Missouri
Wilson, Willard Oliver	Com	63	Wilnot, Mississippi
Wilson, William Paterson	AE		Coal City
Wilson, Winifred	LAS (SS)	52	Atwood
Wiltsee, Beatrice Lenore	HSagr		Marion, Indiana
*Winans, Harold George	EE	37½	Aurora
Winans, Jason Hobart	Agr		Rutland
Windle, Clifford Cover	Agr sp	31	Mt. Morris
Wing, Orion	SS	130½	Capron
Wingard, Harry	LAS		Champaign
Winkelmann, Roland Earl	LAS	35	Belleview
Winkler, Ross Wayne	Agr	30½	Newman
Winn, Benjamin	Agr		Richmond
Winn, George Pickrell	EE (SS)	51	Kansas City, Missouri
Winn, Glen Hollis	Com sp		Chicago Heights
Winokur, Morris Charles	RCE	111	Volinsky, Russia
Winship, Mary Alameda	HSLAS	30	Tiskilwa
Winslow, Lawson Tracy	Agr		Lewiston, Montana
Winter, Elijah	Agr	60	Annawan
Winters, Lawrence Morse	Com	35	Chicago
Winters, Nina Lucille	Mus		Kansas
Wirt, Verna Edna	HSLAS		Le Roy
Wirth, Fremont Philip	SS	7½	Waterloo
Wirth, Walter Valentine	ChE	74	Mt. Carmel
Wise, Clark Edward	Agr	59	Champaign
Wise, Opal	LAS		Champaign
Wisegarver, Elizabeth Pauline	HSLAS	66	Champaign
Withers, William Price	CE		Ashland, Wisconsin
Witherspoon, Clyde Finley	Agr (SS)	34	Champaign
Withrow, Frances Louise	LAS		Springfield
Woerman, Lillian Honens	LAS	20	St. Louis, Missouri
Wold, Ingall Ensor	Agr	106½	Dixon
Woleben, Fred Alvin	Agr		Marengo
Woleben, Wilbur Townsend	Agr		Chicago Heights
Wolf, Elsa Caroline	HSagr sp		Urbana
Wolfe, Laura	SS		Covington, Kentucky
Wolfe, Roy Friesner	Agr		La Place
Wolfers, Robert Charles	LAS		Hopkins, Missouri
Wolff, Aline Jeannette	HSLAS	34	Urbana
Wolgast, Dora Emma	Mus sp		Danforth
Wolgast, Leota Alice	LAS	32	Danforth
Wolter, Herbert	Agr	32	Danville
Wolter, Mitchell	LAS	103	Moline
Womacks, Mabel, A.B., 1915	SS		Champaign
Wong, Isaac Nelson	Com		Fukien, China
Wong, Marvin Yik Hseu	Com		Shanghai, China

\*Deceased December 25, 1915.

Wong, Yuk Man	ME		Canton, China
Wong, Som Quong	SS	2	Deadwood, South Dakota
Woo, Yin	Com	74	Swatow, China
Wood, Adeline	HSagr	97	Sullivan
Wood, Benjamin F	Com		Independence, Missouri
Wood, Charles Clifford	CE	39	Jacksonville
Wood, Eva Myrtle	SS		Oak Park
Wood, Helen Louise	LAS		Pekin
Wood, Henry Lowell	Agr		Potomac
Wood, Paul Washington, Jr.	A		Carrolton
Woodcock, Helen Ernestine	HSLAS	59	Ogden, Utah
Woodham, George Elmer	Agr		Grayville
Woodroffe, Louise Marie	LAS	71	Champaign
Woodrow, Raymond Burns	Agr	57	Green Valley
Woodruff, Arthur Eugene	Com (SS)	184	Champaign
Woodruff, Paul Allison	EE		Georgetown
Woodruff, Ruth Beatrice	Agr		Champaign
Woods, Andrew Chevalier Jr.	ME	74	Chicago
Woods, Frances Octavia	LAS	46	St. Louis, Missouri
Woods, Grace Blacklidge	LAS		Sterling
Woods, Lenna Adaire Beryl	LAS (SS)	39	Champaign
Woods, Lois May, B.L. (Univ. of California) 1915	Lb		Berkeley, California
Woods, Lyle Lucile	LAS (SS)	8	Champaign
Woods, Ralf Charles	Agr	69	Evanston
Woods, Ray James	Com	67	Evanston
Woodyatt, Harold	Com	62	Dixon
Woolford, Robert Hugh	Med		Arcola
Woolford, Samuel Ward	LAS		Greenville, Mississippi
Woolman, Rachel Margaret	HSagr	102	Urbana
Woolman, Richardine	LAS	103	Urbana
Worcester, Richard Ladd	LAS	23	Roodhouse
Worner, Henry Harold	Agr	31	San Jose
Worthington, Robert Jr.	Med	59	Petersburg
Woulfe, Henry Francis	EE		Chicago
Wray, Charles William	Agr	102	Rockford
Wrede, Bertram Alfred	CE	65	Chicago
Wright, Agnes	LAS	99	Charles City, Iowa
Wright, Donald Townsend	ChE	36	Chicago
Wright, Douglas Jr.	Agr	115	Decatur
Wright, Edward Paul	CE	108	Brockton
Wright, Emma	HSagr	67	McLean
Wright, Josef Franklin	Com	93	Alton
Wright, Joseph William	CerE (SS)	72	Herscher
Wright, Mildred Winifred	Agr	14	Okauchee, Wisconsin
Wright, William Edson	Med	23	Gifford
Wright, Willie Zeno	LAS		Vermilion
Wrisley, George Alfred	ChE	112	Chicago
Wu, Hueyjung Leance	Com		Shanghai, China
Wu, Wei Yeh	LAS	101	Hunan, China
Wuerker, Adolph Kirsch	Com	39	Alton
Wuertenbaecher, Harry Edward	A		St. Louis, Missouri
Wuerzinger, Ella Marie	LAS		Chicago
Wycoff, Benjamin Henry, B.S., 1915	SS		Laura
Wykle, Ethel Marie	Agr	114	Mahomet
Wyne, Walter Louis	LAS		Vermont
Yale, Gertrude Emily	LAS	24	LaGrange
Yamada, Yasuo	CE		Kagoshima, Ken, Japan
Yamamoto, Soichi T	EE	110	Honolulu, P. I.
Yang, Tsao Shing	EE (SS)	84	Hunan, China
Yapp, William Wodin, M.S., 1914	LAS		Champaign
Yates, James Stephen	Com sp		Oak Park
Yeager, Leland Edward	CerE	37	Maywood
Yeazel, Lloyd Homer	SS	38	East Lynn
Yee, Gan Chyo	ChE (SS)	76	Changning, China
Yerington, John George	Agr	31	Waterloo, Michigan
Yerkes, Charles Wrenn	SS	14	Moweaqua
Yindrock, Leo Edwin	MnE (SS)	40	Chicago
Yockey, Merle Albert	Com	35	Beardstown
Yonkman, George	CE		Fulton
Young, Arthur Tatarian	Com	69	Chicago
Young, Paul Morris	ME		Oswego
Young, Philip Page	Com		Chicago
Youngblood, Alta Miriam	LAS		Hooperton
Youngman, Wilbur Hughes	Agr		Santa Paula, California
Yount, John Joseph	Com		Middletown, Indiana
Yu, Hsi Chi	Com	60	Shanghai, China
Yu, Lin Lung	LAS sp		Shanghai, China
Zaleski, Jan Paul	Agr (SS)	65	Poland
Zelle, Carl Alfred	Ch	107	Lake Fork
Zeller, Laurence Willard	Com	34	Brazil, Indiana
Ziegenhagen, Walter	AE	63	Oak Park
Ziese, Fred W	SS	6	Sullivan

Zimmermann, Arthur Charles	<i>AE</i>	127	Peru
Zimmermann, Harry Gustav	<i>LAS</i>		Peru
Zinser, Robert Bruce	<i>Com (SS)</i>	89	Washington
Zolotkoff, Hyman Jacob	<i>LAS</i>		Chicago
Zuckerman, Benjamin Selman	<i>A</i>		Chicago

## COLLEGE OF MEDICINE

Name	Year	Residence
Anderson, Richard Elsph	2	Rock Island
Appelle, Conrad George	4	Mt. Carroll
Armstrong, Clifford Oakley	1	Bloomington
Armstrong, Victor Scott, B.S.	3	Sioux Falls, South Dakota
Baker, William Asa	3	Richmond, Maine
Barbour, Orville Everett	1	Peoria
Barickman, Robert Irving	4	Lewisville, Minnesota
Barnett, Edwin Judge	4	Peoria
Beatty, Hannah Jane	4	Lake View, Ohio
Beilin, David Solomon	1	Chicago
Bennett, John Francis	4	Waterford, Wisconsin
Benjamin, Harry Webb	3	Chillicothe
Berge, Maurice Aurelius	3	Ransom
Bergin, Clifford Edward	4	Chicago
Bernstein, Alick	4	Chicago
Bivings, Franklin Carlisle	4	Atlanta, Georgia
Blim, Warren Caldwell	4	Crete
Blodgett, Pliny Russell, B.S.	4	Harvard
Bolka, Bernard Joseph	4	Michigan City, Indiana
Bourbon, Rollo Preston	4	Kansas City, Missouri
Bowell, Roy Melson	4	Rolling Prairie, Indiana
Brosnan, John Thomas	4	Chicago
Browne, Lewis Edwin Joel	4	Lewistown, Missouri
Brucker, Edward Arthur	4	Fond du Lac, Wisconsin
Burling, Wesley Morgan	4	Muskegon, Michigan
Brynes, William Armstrong	3	Minneapolis, Minnesota
Capron, Manley Joseph	4	Waldron, Colorado
Carothers, Herbert Chapman	3	Chicago
Carpenter, Fred Elton	2	Reasnor, Iowa
Carroll, William Franklin	4	Hannibal, Missouri
Carstenson, Albert Brockway	4	Waverly, Iowa
Casey, Emmett Francis	4	Chicago
Cecil, Eugene Randolph	3	Chicago
Clamitz, Arthur Isadore	1	Chicago
Clark, Alger Arthur	4	Chicago
Claypool, Blaine Wilson	4	Chicago
Cobb, Horace R	4	Kalamazoo, Michigan
Cody, Michael Milton	4	Chicago
Connell, Walter Joseph	1	Farley, Iowa
Cooper, James Swaney	4	New Wilmington, Pa.
Cooper, Ward	4	Parsons, Kansas
Cotton, Schuyler Opp	4	Vermilion, South Dakota
Cross, Aubrey James	4	Aberdeen, Washington
Curl, Howard E., A.B.	4	Osborne, Kansas
Cushman, Agnes Beulah	4	Bethany, Missouri
Cutting, Lloyd David	4	Stevens Point, Wisconsin
Dame, Louis	3	Chicago
Doktorsky, Maurice	3	Chicago
D'Vorak, Albert Charles	2	Keweenaw, Wisconsin
Dyer, William Holmes	4	Chicago
Dysart, Benjamin Quincy	2	Granville
Earel, Fred Elwell	4	Abingdon
Eby, Ida	1	Columbus Grove, Ohio
Eck, Charles Patt, Ph.C., Ph.G.	4	Chicago
Ehrlich, Maxmilian Charles	1	Chicago
Eisenberg, David	4	Minneapolis, Minnesota
Elston, Lynn Wickwire	4	Angola, Indiana
English, Lloyd Hayden	2	Chicago
Evans, Arthur Morgan	4	Chicago
Eye, Boyd Franklin, Jr.	4	Talmadge, Kansas
Fetherston, James Edward	2	Edmonton, Alberta
Fink, Marion Shelly	4	Chicago
Finsand, Victor	4	Aberdeen, South Dakota
Fisch, Max Eleazar	1	Chicago
Fordyce, Alexander William	4	Gilman
Fox, Nathan Henry	1	Chicago
Francisco, Sixto Acosta	2	Batangas, Philippine Islands
Frederickson, Sophia Henrietta	4	Chicago
Gates, Leo Vincent	4	Elgin, Minnesota
Gilchrist, Virgil Martha, B.S.	3	Moscow, Idaho
Gilmore, Russel Adams	4	Michigan City, Indiana
Glover, Harold Mortimer	4	Newton, Kansas
Goggin, John Gervase	4	Rochester, Minnesota
Goldberg, Benjamin	4	Chicago

Golden, Waldo Emerson, A.B.	3	Champaign
Golub, Samuel	3	Chicago
Goving, Olaf John	1	Cylinder, Iowa
Greenfield, Jacob Rachmiel	1	Chicago
Grissom, Calton Barney	3	Syracuse, Kansas
Groos, Louis Peter	1	Escanaba, Michigan
Hall, Alice Cassie, A.B.	1	Chicago
Hanson, Harlow James, B.S.	1	Hutchinson, Minnesota
Hardinger, Paul Milton	1	Gays
Hartwell, Basil Orman	3	Maysville, Missouri
Hasek, Victor Hugo	4	Cedar Rapids, Iowa
Hawthorne, Grace Maude	4	Nevada, Iowa
Hilbert, John William	1	Chicago
Hildebrand, Gustav John	3	Sheboygan, Wisconsin
Hommel, Placido Rainos Vasquez	4	Neillsville, Wisconsin
Huber, Paul Robert, Ph.G.	3	Chicago
Hughart, Harold Hershall	3	Pocatello, Idaho
Hunt, Gerald Charles	4	Des Moines, Iowa
Ignatius, Arsharvie	4	Armenia, Turkey in Asia
Israelson, William	4	Chicago
Iverson, Louis	3	Badger, Minnesota
Jacobson, Clarence August	4	Chicago
Jacobson, Leo Jacob	4	Chicago
Jaracz, Walter John	4	East Chicago, Indiana
Jeffrey, James Robinson, Jr.	2	Nortonville, Kansas
Jeffries, Daniel William	4	Marietta
Jelliffe, Martin Bushnell	3	Mansfield, Ohio
Jones, Orion Chester	1	Redmon
Karatz, Morris Baron	3	Minneapolis, Minnesota
Katz, Harry	4	Chicago
Kelly, Everett Clyde	1	Chillicothe
Kennedy, Josephine, A.B.	3	Wheaton
King, Ralph	4	Olney
Kipnis, Benzion	1	Chicago
Kline, Ralph Glenn	3	La Porte City, Iowa
Koch, Herman Carl	4	Harvard
Koptik, George	2	Cicero
Kulasavicz, Bernard J.	4	Bessemer, Michigan
Kutzenberger, Helen Pearl	4	Jerseyville
Kwauk, Zang Yien, B.S.	3	Canton, China
Lampert, Max	4	Forest Park
Langlois, Harvey Louis, A.B.	3	Kankakee
Leibinger, Henry Robert	4	Chicago
Leiserwitz, Samuel Brody	3	Herscher
Levinson, Arthur Samuel	1	Chicago
Lipp, George Robert	4	Brandon, Wisconsin
Lifschutz, Jacob	4	Chicago
Lungmus, Bruno	4	Chicago
Malcolm, William Alexander	1	Higbee, Missouri
Mandanas, Anfeto Ylagan	4	Banan, Philippine Islands
Marchan, Juan Sixto	4	Barceloneta, Porto Rico
Marcus, Morris	1	Chicago
Mars, Hartley Farnham, Ph.C.	3	St. Paul Park, Minnesota
Martin, Leon Wade, Ph.C.	3	Plainwell, Michigan
Masson, Hervey Fulton, Ph.C., M.D.	4	Washington, Iowa
Matthews, Cora Arminta	4	Champaign
Meacham, Hubert Franklin	4	Oak Park
May, Edwin Ralph	3	Clinton
Meggers, Edward Charles	3	Walker, Iowa
Mercey, Raymond John	2	St. David
Moffett, Reuben Alvord	4	Wenona
Morin, Oswell	1	Danville
Moulton, Gertrude Evelyn, A.B.	1	Reva, South Dakota
Mulholland, William James	4	Chicago
Murphy, Thomas Benton	2	Oakdale, Washington
McCoy, Henry James	3	Amboy
McGuiness, Hugh Stanley	1	Chicago
McGuire, Mary Ruth	4	Holstein, Iowa
McRae, Maury Holcombe	4	Corinth, Mississippi
McNally, William Duncan	sp	Chicago
Nakaya, Fusa	4	Kyoto, Japan
Nigro, Rocco	4	Chicago
Norton, Harry Sims	4	Pontiac
Norwood, Lincoln Harrison	3	Bluejacket, Oklahoma
Ochs, Clara M	2	Oak Park
Oliver, Henry Earle	1	Sigourney, Iowa
Olson, Clarence Willard	3	Escanaba, Michigan
Orcutt, Arthur Henry, A.B., S.B.	2	Arcola
Paskind, Jacob	4	Chicago
Peterson, Harry Michael	4	Chicago
Peterson, Joe Oliver	1	Princeton, Minnesota
Peterson, Ralph Waldo	4	Chicago
Piaszyanski, Francis	2	Chicago
Pino, Ralph Harrison	4	Ithaca, Michigan

Piro, Victor	4	Cle Elum, Washington
Preston, William Booker	4	Salt Lake City, Utah
Propst, Duane Willard	1	Springfield
Radabaugh, Rudolph Charles, B.S.	3	Zumbro Falls, Minnesota
Radeff, Ivan Nicholas	2	Chicago
Raihala, Wilhelm	1	Virginia, Minnesota
Raim, William	4	Chicago
Raman, Henry Benjamin	4	Farmingdale
Rankin, Fred Martin	1	Akron, Ohio
Ray, James Henry	3	Alexander City, Alabama
Rock, John Lestrange, B.S., A.B.	4	Lexington, Oklahoma
Rosenheim, Ethel, B.S.	1	Chicago
Rowland, Samuel Joy	4	Sunnyside, Washington
Royster, Hallace Rector	3	Argo
Salpas, Spero	3	Chicago
Sanders, George Edward, B.S.	3	Champaign
Sapper, Herbert V L	3	Hartford, Connecticut
Sauer, Francis Joseph	3	Chicago
Schachter, Joseph Andrew	1	Chicago
Schelin, George William	2	Denison, Iowa
Schiff, Nathan Samuel	4	New York City
Schmidt, Elmer Jacob	1	Seymour, Wisconsin
Seletz, Abraham	4	Chicago
Sered, Harry	3	Milwaukee, Wisconsin
Severson, James Melvin	4	Deerfield, Wisconsin
Sexsmith, Edna Kathryn, B.A.	2	Greenfield, Iowa
Short, Roy Davis	4	Whitchall
Shurtliff, Raymond Shryock	1	Cuba
Silverstein, Willis Irving	4	Chicago
Sladek, Edward Frank	2	Chicago
Small, James Craig, B.S.	3	Chambersburg, Pennsylvania
Smith, Edwin Jefferson, B.A.	1	Belgrade, Minnesota
Smith, Lloyd Emerson	4	Marietta
Smith, Warren Braman, B.A.	1	Waukesha, Wisconsin
Spiering, Arthur Kern	4	Fond du Lac, Wisconsin
Stein, Michael	1	Chicago
Stern, Jacob	4	Chicago
Stern, Louis Henry	4	Chicago
Stevenson, James	3	Chicago
Stolfa, Ladislaw	4	Chicago
Sutch, Armand Kredel	3	Chicago
Sykes, Newman Marion, B.S.	3	Decatur, Alabama
Szwajkart, Adam Leo	3	Chicago
Taub, Samuel Jack	4	Chicago
Tanquary, John Hansford	1	Bellmont
Tharp, Herbert Milton	1	Reasnor, Iowa
Tiedeman, Ian Davis	4	De Soto, Wisconsin
Tomlin, Russel	4	Easton
Tomsu, Charley Lewis	4	Renfrow, Oklahoma
Toothaker, Joel Edwin	4	Sandova
Tranter, Paul Webster	1	Armour, South Dakota
Vartanian, Mardiros Bedros	4	Armenia, Turkey in Asia
Vaughn, Edward Perry	1	Minneapolis, Minnesota
Velitchcow, Methodi	1	Bulgaria
Vrtiak, Emil	1	Hungary
Waldmann, Louis Francis	2	Council Bluffs, Iowa
Wagoner, Guy L	2	Chicago
Walpe, Hyman S	1	Antigo, Wisconsin
Weaver, George Lynn	1	Waupun, Wisconsin
Wedge, Athol Horatio	4	Wheaton
Welden, Ned Amos	3	Waverly, Iowa
Whitmire, Clarence Leonard	1	Evanston
Williams, Mary Edith, A.M.	3	Tuscola
Williamson, Earl Willbre	1	Marshalltown, Iowa
Wilson, Harry Huhts	4	Huron, South Dakota
Wilson, Marcus Bryd	4	Chicago
Wojniak, Frank	3	Chicago
Wolf, Paul Jacob	4	Chicago

## COLLEGE OF DENTISTRY

Name	Year	Residence
Achinelly, Oscar L	1	La Plata, Argentine Republic
Albers, William F	1	Chilton, Wisconsin
Alden, Ralph	3	North Platte, Nebraska
Allen, Bernard R	1	Chicago
Allgeier, J Harold	1	Chicago
Anderson, Martin R	2	Lynn Center
Arneson, Bert J	1	Chicago
Baird, William G	2	Portland, Oregon
Ball, Frank H	2	Oklahoma City, Oklahoma
Bashur, Abraham K	1	McKeesport, Pennsylvania
Bellan, Chester P	1	Chicago

Berens, Vincent J	1	Shakopee, Minnesota
Berman, Harold H	3	Chicago
Bernstein, Nathan	3	Chicago
Best, Reginald B	1	Evanston
Blaine, Luther L	3	Douglas, Wyoming
Blair, Maurice I	3	Chicago
Bonney, Thomas C	3	Aberdeen, South Dakota
Bostik, E. Joseph	3	Belleville, Kansas
Breyer, Austin S	1	Chicago
Brown, Clyde	1	Plant City, Florida
Carroll, F W	1	Chicago
Chambers, Mrs. C C	1	Chicago
Collins, Gerald Ralph	1	Vermillion, South Dakota
Condit, Harold H	3	Chicago
Condron, Francis L	1	Sanborn, New York
Cunningham, Norris L	1	Bowen
Cusick, William	3	Chicago Heights
Dipple, Albert R	1	North Freedom, Wisconsin
Dixon, Robert J	3	Elroy, Wisconsin
Drea, Arthur S	1	Chicago
Droher, Isaac H	1	St. Joseph, Missouri
Dolson, John L	2	Charlott, Michigan
Erickson, Edwin O	1	Cottonwood, Minnesota
Fellows, Mac C	2	Coldwater, Michigan
Felz, John H	2	Chicago
Fitzgerald, Edward V	1	Mondovi, Wisconsin
Franzwa, Charles	2	Mondovi, Wisconsin
Freeman, Charles Boyd	1	Volga, South Dakota
Frei, Clayton P	1	Marquette, Michigan
Frere, Francis G	1	Chicago
Glazat, Carl E	1	Grand Haven, Michigan
Goldberg, Isadore	1	Chicago
Gorham, Louis Andrew, Ph.G.	1	Chicago
Gorman, Francis L	1	Chicago
Hansen, Earl Edward	1	Menominee, Michigan
Harnick, H	3	Chicago
Hewitt, Norman Oscar	1	Montreal, Canada
Horiuchi, K D.D.S.	3	Kamidemizu, Japan
Houda, Emily	1	Chicago
Humphrey, Robert I	3	Chicago
Inde, Dean E	2	Waukon, Wisconsin
Jaros, Joseph E	2	Chicago
Jarrett, Frank	2	Chicago
Jelen, Vladimir	3	Prague, Bohemia
Jesser, Jacob	3	Chicago
Johnson, Ernst G	3	Hazel, Minnesota
Johnson, Earl E	3	Linwood, Nebraska
Johnson, Harrel R	2	Aurora
Kadlec, Lillian	1	Chicago
Ketterhagen, Alfred J	1	Burlington, Wisconsin
Koch, Lawrence M	3	La Porte, Indiana
Korsbæk, Oscar	1	Wheaton, Minnesota
Kousnetz, Louis B	3	Chicago
Kowen, Samuel	1	Chicago
Kozinski, Lucian C	1	Chicago
Krost, Max Howard	1	Chicago
Kubacki, Wauclau	2	Chicago
Lasker, Herman	1	Chicago
Lauter, Fred	1	Chicago
Leach, Edward R	1	Chicago
Lee, Carl S	2	Mondovi, Wisconsin
Levinson, Rubin	1	Chicago
Lincoln, Richard G	1	Chicago
Litscher, Albert A	3	Fox Lake, Wisconsin
Loewenthal, Louis C	3	Chicago
Logan, Harold Fench	1	Red Lodge, Montana
Majts, Aage	2	Fredericksberg, Denmark
Masters, Lisle W	1	Angola, Indiana
McDonald, Clarence F	1	Chicago
McCormell, Charles J	1	Gibson City
McVey, Leo J	1	Chicago
Meier, Louis	3	Lincoln, Nebraska
Meinhardi, John D	1	Whitehall, Michigan
Mershimer, James D	2	Chicago
Motlong, Chauncey E	1	Crete, Nebraska
Murphy, Lee Clair	1	Rushville
Nemecek, Charles	2	Chicago
Ogle, Harold D	1	Westfield, Wisconsin
Olson, William Dumass	1	Volga, South Dakota
Orloff, Louis	3	Chicago
Ostrowski, Theodore	2	Chicago
Owen, Jesse	1	Chicago
Playman, Harold	3	Stevens Point, Wisconsin
Person, Allgot	2	Chicago

Reckard, Harry	2	Chicago
Reiland, Marjorie	1	East Chicago, Indiana
Reiseman, Henry	3	Chicago
Richter, Camille	3	Chicago
Rosenthal, William	1	St. Joseph, Missouri
Rubin, Edward	2	Chicago
Savage, Edmund H	1	Wheaton
Schiltz, Albert F	2	Iowa City, Iowa
Schlussel, Noah	3	Detroit, Michigan
Sears, Victor H	3	Chicago
Senty, Myron	1	Arcadia, Wisconsin
Shalek, Victor J	2	Chicago
Shapiro, Fred H	1	Chicago
Sherman, Robert I	2	Chicago
Shlutz, Sidney	1	Chicago
Skolnik, Herman H	1	Chicago
Sippy, Burne O., A.B.	2	Fort Totten, North Dakota
Smith, Pepper Wheeler	3	Hancock, Michigan
Starrett, Fred H	1	Chicago
Stillerman, Jacob	1	Aurora
Stubbs, James Walter	1	Chicago
Tegtmeyer, George J	1	Chicago
Teter, Harry Arthur	1	Chicago
Thomas, Ashley T	1	Faulkton, South Dakota
Turner, William E	1	Wheatland, North Dakota
Upp, Roscoe W	3	Havana
Welch, Harold	2	Chicago
White, Leslie George	2	Golden
Wilder, Robert E	1	Elkhart, Indiana
Winsberg, Harry	2	Chicago
Wood, Max T	3	Charlotte, Michigan
Wood, Alfred Harold	1	Utica, New York
Yeatman, Oscar B	1	Huntsville, Alabama

## SCHOOL OF PHARMACY

Name	Course*	Residence
Agdesteen, Oliver Toby	P 1	Chicago
Albright, Mahlon Frank	P 2	Auburn, Indiana
Alstaedt, Benjamin William	P 1	Chicago
Anderson, Ednah Blanche	PC 1	Dow City, Iowa
Anderson, Otto	P sp	Chicago
Andrzelszyk, Vincent	P 2	Chicago
Antonello, Joseph	P sp	Chicago
Arneson, Wallace Gregory	P 1	Chicago
Aron, Fannie Lillian	P 2	Chicago
Ayers, Leo	P sp	Chicago
Babbitt, Corydon Aephalia	P 1	Chicago
Bakkens, Arthur	P 2	Chicago
Bakkens, Neff Kuyper	P 1	Chicago
Barone, Christopher	P 2	Chicago
Baxa, Ladislav Edward	P sp	Chicago
Beckert, LeRoy	P sp	Chicago
Beckman, William	P 2	Chatsworth
Benedetti, Raymond	P sp	Chicago
Bidwell, Charles	P 1	Albion, Indiana
Bily, Joseph Frank	P sp	Chicago
Black, Waldo Knox	P 1	Chicago
Bland, Claude Edward	P sp	Chicago
Bloch, William	P 1	Chicago
Bogard, Asher Holland	P 2	Olney
Borovik, Reuben Ray	P 1	Chicago
Bradley, James Francis	P 2	Charleston
Brummall, Anna Belle	P 2	Salisbury, Missouri
Butts, Joseph	P 2	Chicago
Calderon, Guillermo	P 1	El Paso, Texas
Catlin, Herbert Murray	P 1	Brookfield
Cech, Robert Frank	P sp	Chicago
Chochola, James Joseph	P 1	Chicago
Christiansen, Carl Bernhard	P 1	Chicago
Claus, Robert	P 2	Chicago
Cooban, Frank George, B.S. (Armour Institute) 1915	P 1	Chicago
Copeland, Thomas Bragg	P 2	Grand Junction, Colorado
Cortesi, Dante	P 2	Cairo, Egypt
Crist, Raymond James	P 2	Chicago
Curlee, Raymond Anderson	P 2	Ashley
Dahlman, Vernon John	P sp	Chicago
Datz, Charles Percival	P 2	Chicago
Davidson, Charles Elmer	P 2	St. Louis, Missouri

\*Abbreviations: P, Pharmacy; PC, Pharmaceutical Chemistry; 1, first year; 2, second year; sp, special.

Denson, Ernest Nichols	P	2	DeKalb
Dewey, Everett William	PC	2	Lake Mills, Wisconsin
DiCosola, Anthony	P	1	Chicago
Dillow, Russell Lowell	P	1	Dongola
Downey, John Patrick	P	1	Chicago
DuBroff, William	P	1	Bellevue, Iowa
Dyniewicz, Hattie Adela	P	1	Chicago
Dyniewicz, Josephine Marion	P	1	Chicago
Easter, Joseph Henry	P	1	East St. Louis
Erickson, Ernest	P	sp	Pontiac
Erickson, Elmer	P	2	Chicago
Feigl, Ferdinand John	P	1	Chicago
Ferring, Alphonse Peter	P	1	New Vienna, Iowa
Florian, Tony Henry	P	1	Chicago
Foreman, Daniel	P	sp	Chicago
Fox, Paul Mandal	P	1	South Bend, Indiana
Frederick, Albert Charles	P	1	Chicago Heights
Friedl, William John	P	2	Chicago
Friedley, Andrew Carl	P	1	Chicago
Fry, Leslie Sanborn	P	1	Chicago
Furman, Earl Francis	P	1	Lassen, Wisconsin
Gasen, Harry	P	2	Chicago
Giddings, Howard Donald	P	sp	Chicago
Goldhorn, Ernest	P	1	Chicago
Goldman, Benjamin	P	1	Chicago
Graham, Frank	P	2	Carlinville
Green, Leonard Ralph	P	1	Herrin
Greenwood, Robert Lee	P	2	Chicago
Guild, Grant	P	1	Geneseo
Haffner, Carl Francis	P	1	Bloomington
Hanna, Glenn Ensign	P	sp	Chicago
Hansen, Arthur Leon	P	2	Chicago
Hayranek, Charles Joseph	P	sp	Chicago
Heidbreder, Grant Henry	P	1	Quincy
Hill, Frank Wanless	P	1	Chicago
Holden, Edwin Cyrus	P	2	Chicago
Huhn, William	P	sp	Chicago
Jacks, Alan Wallace	P	2	Ottawa
Johannes, Fred Richard	P	sp	Chicago
Jones, William Leslie	P	1	Peoria
Jordan, Clement	P	1	Wapella
Kaminski, Richard Marshall	P	1	Chicago
Kaplan, Samuel Salmon	PC	1	Chicago
Kartanas, Anthony George	P	sp	Chicago
Karel, Louis	P	1	Chicago
Kirchner, Clemence Victor	P	1	DeKalb
Klein, Beulah	P	1	Downer's Grove
Kline, Raleigh William	P	sp	Chicago
Kostka, Walter John	P	2	Chicago
Langel, Harry Charles	P	2	Robinson
Langerman, Alexander	P	1	Chicago
Lassis, Harry Hlia	PC	1	Chicago
Leone, John Edwin	P	1	Chicago
Lindh, Carl Wilhelm Birger	P	1	Stockholm, Sweden
Lofgren, David	P	2	Chicago
Lewis, Benjamin	P	2	Chicago
Lundgren, Oscar Ludvick	P	1	Highland Park
Mandell, Samuel	P	1	Chicago
Marshall, Bruce Scott	P	2	Chicago
Marsicano, Frank	P	2	Melrose Park
Mawrence, Israel	P	2	Chicago
Mazzei, Orazio	P	2	Chicago
Melvin, James Edwin	P	1	Chicago
Menella, Vincent Robert	P	1	Chicago
Miller, Carl Theodore	P	1	Chicago
Miller, Thomas	P	1	Chicago
Moss, Thomas Cole	P	1	Ottawa
Mott, William Davis	P	1	Princeton, Kentucky
McCanse, Cecil C., B.S. (Univ. of Missouri) 1909	P	2	Columbia, Missouri
McDonald, William James	P	1	Murphysboro
McGinnis, Walten Thomas	P	1	Rochelle
Neumann, Herbert Leonard	P	1	Chicago
Newar, Irving Julius	P	1	Chicago
Nyberg, Carl Walter	P	2	Clinton, Iowa
Oliver, Richard Neil	P	1	Chicago
Ortmann, Albert	PC	2	Kankakee
Owens, Hubert Fred	P	1	Clinton
Parker, Donald Lucas	P	1	Vicenna
Pelikan, Alice Eliska	P	1	Chicago
Perez, Victor	P	sp	Seyba, San Domingo, West Indies
Person, Frank Daniel	P	2	Chicago
Perzik, William Henry	P	sp	Chicago

Petronek, Charles Wesley	P	sp	Kankakee
Pierce, Vernon Prescott	P	1	Chicago
Plain, Homer Fielden	P	sp	Springfield
Pohlman, Paul Henry	P	1	Palatine
Porter, Lillian	P	2	Chicago
Post, Charles Ezra	P	1	Chicago
Prutzman, Harold Claude	P	1	Princeton
Quartetti, Leonard	P	2	Chicago
Real, Dennis Bernard	P	sp	Moline
Rey, Young	PC	sp	Soon Chun, Korea
Ritzman, Harvey	P	2	Orangeville
Robinson, Garnsie H	P	1	Rockford
Roman, Miguel Angel	P	sp	Santiago, San Domingo
Ruder, Rose J	P	1	Chicago
Rylander, Reuben August Ferdinand	P	2	Joliet
Schaefer, Arthur William	P	sp	Galena
Scheiwe, William Albert	PC	1	Crete
Schober, Rudolph Johannes	P	1	Chicago
Schreyer, Michael	P	1	Chicago
Scogin, Joseph William	P	sp	Wapella
Schultz, Ernest Christian	P	2	Columbus, Wisconsin
Sedlacek, George	P	1	Chicago
Seibert, Lyle Albert	P	1	Ashley
Shapiro, Leo Harold	PC	1	Chicago
Sikucka, Jeanette Helen	P	2	Chicago
Sikyta, Henry William	P	1	Chicago
Silverman, Samuel	P	sp	Chicago
Simmons, Donald Fletcher	P	1	Girard
Slama, Joseph Frank	P	sp	Cicero
Slepicka, Irwin Miles	PC	1	Cicero
Smith, Francis Parke	P	1	Paris
Snyder, Dayle Albert	P	1	Astoria
Spanier, William Charles	P	1	Chicago
Stark, LeRoy T. D.	P	1	Chicago
Steffen, Edward Diedrich	P	1	Whitefish, Montana
Stegmann, Jacob Christopher	P	1	Portage, Wisconsin
Stein, Victor	P	1	Chicago
Steinweg, Walter Charles	P	1	Chicago
Still, Perrie Clayton	P	1	DeKalb
Templeton, James William	P	2	Rockport, Missouri
Thoroman, Ralph Rickey	P	2	Mt. Sterling
Tscherney, Harry Joseph	P	sp	Chicago
Turnell, Edward Oscar	P	sp	Chicago
Turner, Henry Owen	P	2	St. Louis, Missouri
Ude, Louis Edward	PC	1	Carmi
Underriger, Edwin Joseph	P	2	Efingham
Vale, Leland LeMarr	P	2	Henry
Vahlteich, Hans Walter	P	1	Chicago
Van Kempema, Richard	P	2	Chicago
Vesely, Janies	P	1	Chicago
Vlazny, John George	P	2	Chicago
Vondracek, Albert Frank	P	1	Chicago
von Steuben, Stephen	P	1	Chicago
Voots, Joseph Gerhardt	P	sp	Quincy
Vovesny, Joseph Paul	P	1	Chicago
Wallace, Lee Edward	P	sp	Chicago
Walz, August Anton	P	sp	Hartington, Nebraska
Ward, Burt Hamor	P	1	Toulon
Weaver, Robie Holland	P	2	Muncie, Indiana
Weber, Paul Ernest	P	sp	Herscher
Werner, LeRoy Valentine Carl	P	1	Milwaukee, Wisconsin
Whitley, Walker Edward	P	2	Waterford, Wisconsin
Whitney, Guy Vernon	P	2	Wenona
Wilhelm, Werner Henry	P	2	Chicago
Wilson, Charles Harvey	P	1	Pomona, California
Wilson, Ruth Frieda	PC	1	Chicago
Wokoun, Frank	P	2	Chicago
Zalubowski, Anton	P	sp	Chicago
Zarobsky, Frank James	P	sp	Chicago
Zeitmann, Harry	P	sp	Chicago
Young, Eugene	P	1	Flanigan

# DEGREES CONFERRED

1915

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## THE UNDERGRADUATE COLLEGES

Degrees of Bachelor of Arts, Bachelor of Literature, Bachelor of Science,  
and Bachelor of Music

*Conferred June 16, 1915*

- LOUIS ASA ABBOTT, Bachelor of Science (Agriculture\*)  
MARY OLENA ADAMS, Bachelor of Arts (Liberal Arts)  
WILLIAM CALVIN ADAMS, Bachelor of Science (Chemistry\*)  
HARRY FRANCIS AINSWORTH, Bachelor of Science (Agriculture)  
HARRY GREGORY AINSWORTH, Bachelor of Science (Agriculture)  
LAURA ANNA ALBAND, Bachelor of Arts (Liberal Arts)  
HAROLD CORNELIUS ALBIN, Bachelor of Science (Agriculture)  
OTHO WILLIAM ALLEN, Bachelor of Arts (Liberal Arts)  
ANDREW JOHN ALBERT ANDERSON, Bachelor of Science (Civil Engineering)  
CLARENCE JOSEPH ANDERSON, Bachelor of Arts (Liberal Arts\*)  
IRVING ANDERSON, Bachelor of Science (Municipal and Sanitary Engineering)  
WALKER WHITCOMBE ANDERSON, Bachelor of Science (Architecture)  
WILLIAM FRENCH ANDERSON, Bachelor of Science (Agriculture)  
HANS HENRY LEWIS ANDRESEN, Bachelor of Science (Architecture)  
JOHN ASA ANDREWS, Bachelor of Science (Agriculture)  
MICHAEL LOUIS ANGAROLA, Bachelor of Science (Civil Engineering)  
DOROTHY MAUDE ARMINGTON, Bachelor of Arts (Liberal Arts)  
PHILLIPS F ARMOUR, Bachelor of Science (Liberal Arts)  
DELLA ESTELLE ARMSTRONG, Bachelor of Arts (Liberal Arts)  
LENNOX FRANCOIS ARMSTRONG, Bachelor of Science (Mechanical Engineering)  
VICTOR SCOTT ARMSTRONG, Bachelor of Science (Science)  
WALTER CLARK ARMSTRONG, Bachelor of Science (Agriculture)  
EDWARD LAURENCE ATKINS, Bachelor of Science (Agriculture)  
BARTON SLADE AVERY, JR., Bachelor of Science (Agriculture)  
HAROLD EMERY AUSTIN, Bachelor of Science (Mechanical Engineering)  
ALICE GRACE AXELSON, Bachelor of Arts (Science)  
HOLLAND ROBERT BACHER, Bachelor of Science (Ceramic Engineering\*)  
CHARLES HENRY LADE, Bachelor of Science (Architecture)  
ALEXIS MATTHEW BAGUSIN, Bachelor of Arts (Liberal Arts)  
JOHN WILLARD BAILEY, Bachelor of Science (Architecture)  
LA FORCE BAILEY, Bachelor of Science (Architecture)  
ALFRED MICHAEL MACE BAKER, JR., Bachelor of Science (Agriculture)  
JOHN DUDLEY BALL, Bachelor of Science (Electrical Engineering)  
FRANK MILTON BANE, Bachelor of Science (Agriculture)  
HAROLD EDWARD BARDEN, Bachelor of Science (Electrical Engineering)  
BYRL ABBOTT BARKER, Bachelor of Science (Agriculture)  
CHARLES PRUDEN BARKMAN, Bachelor of Arts (Liberal Arts)  
SOMENDRA CHANDRA DEE BARMAN, Bachelor of Arts (Liberal Arts)  
ALLEN LITTLE BARNES, Bachelor of Science (Architecture)  
NELLE BARNES, Bachelor of Arts (Liberal Arts)  
ROBERT OLNEY BARNES, Bachelor of Arts (Science)  
AUGUST MATTHEW BARREAU, Bachelor of Science (Architectural Engineering)  
EDNA BARRINGER, Bachelor of Arts (Liberal Arts)  
ALEXANDER FRASER BARRON, Bachelor of Science (Mechanical Engineering)  
JOHN PERCIVAL BEALL, Bachelor of Arts (Liberal Arts)  
WARD POWERS BEARD, Bachelor of Science (Agriculture)  
MARTHA SELMA BECK, Bachelor of Arts (Liberal Arts)  
EDWIN LOUIS BEIFUSS, Bachelor of Science (Agriculture)  
EMERSON DEWITT BELL, Bachelor of Science (Electrical Engineering)  
MARY AURELIA BELL, Bachelor of Arts, (Liberal Arts)  
ARTHUR JACOB BENNER, Bachelor of Arts (Science)  
WILLIAM JACOB BENNER, Bachelor of Arts (Science)  
WILLIAM HARRISON BENNETT, Bachelor of Arts (Science)  
ARTHUR EDWARD BENSON, Bachelor of Science (Architecture)  
FRANK BERGMANN, Bachelor of Science (Architectural Engineering)  
PEARL ANNA MARIA BERNHARDT, Bachelor of Arts (Liberal Arts)  
HARRIETT JOSEPHINE BERNINGER, Bachelor of Arts (Liberal Arts)  
CHARLES HARRY BERWALD, Bachelor of Science (Electrical Engineering)  
VERA BEYER, Bachelor of Arts (Liberal Arts)  
HARRY EDWARD BIGLER, Bachelor of Arts (Liberal Arts)  
ARTHUR BARNES BINGHAM, Bachelor of Science (Agriculture)

\*With thesis.

GEORGE FRENCH BISSELL, Bachelor of Science (Ceramics\*)  
GEORGE WASHINGTON BLAKE, Bachelor of Science (Civil Engineering)  
PLINY RUSSELL BLODGETT, Bachelor of Science (Science)  
EDITH ELLIOTT BOGESS, Bachelor of Science (Agriculture)  
MACDONALD CHARLES BOOZE, Bachelor of Science (Ceramics\*)  
CANUTO OCTAVIO BORROMEO, Bachelor of Science (Mechanical Engineering)  
LOREN CUSHING BOW, Bachelor of Science (Ceramic Engineering\*)  
HAZEL W BOWLUS, Bachelor of Arts (Liberal Arts)  
HAROLD SMITH BRADLEY, Bachelor of Science (Architectural Engineering)  
GEORGE RAYMOND BRANNON, Bachelor of Science (Agriculture)  
LESLIE ORVILLE BRIGHT, Bachelor of Science (Science)  
WILLIAM SANFORD BROCK, Bachelor of Science (Agriculture)  
NATHAN BROMBERG, Bachelor of Science (Ceramic Engineering\*)  
ELIZABETH MAUDE BROOKS, Bachelor of Arts (Liberal Arts)  
FANNIE MARIA BROOKS, Bachelor of Arts (Liberal Arts)  
OSCAR FRANKLIN BROOKS, Bachelor of Science (Agriculture)  
ELMER ALFRED BROWN, Bachelor of Science (Electrical Engineering)  
ELMER ARTHUR BROWN, Bachelor of Science (Chemical Engineering)  
JOHN BERNIS BROWN, Bachelor of Science (Chemistry\*)  
PEMBROKE HOLCOMB BROWN, Bachelor of Arts (Liberal Arts\*)  
WALDO REINHART BROWN, Bachelor of Arts (Science)  
LLOYD WARFIELD BROWN, Bachelor of Science (Agriculture)  
EVERETT ROBERT BRUNSKILL, Bachelor of Science (Chemical Engineering\*)  
ERMANE GAYLORD BUCHER, Bachelor of Science (Ceramics\*)  
CARL WILLIAM BUCKLER, Bachelor of Arts (Science)  
ROY IRVING BUCHANAN, Bachelor of Science (Agriculture)  
KATHERINE MARGARET BUENGER, Bachelor of Arts (Liberal Arts)  
MAUDE EMILY BULL, Bachelor of Science (Agriculture)  
FRANK AVERY BUSH, Bachelor of Science (Liberal Arts)  
GEORGE ROWLAND BUTLER, Bachelor of Science (Civil Engineering)  
BYRDIE BYLIE BUTZER, Bachelor of Arts (Liberal Arts)  
VERNA VIOLA BUTZER, Bachelor of Arts (Liberal Arts)  
LLOYD RAYMOND CALDWELL, Bachelor of Science (Agriculture)  
LORA ALICE CANADAY, Bachelor of Arts (Liberal Arts)  
ARNOLD WILMORE CARLSEN, Bachelor of Science (Architectural Engineering)  
MARY VANCE CARNEY, Bachelor of Arts, (Liberal Arts)  
CHARLES KNEELAND CARPENTER, Bachelor of Science (Architecture)  
DANIEL BERNARD CARROLL, Bachelor of Arts (Science)  
ALICE CARTER, Bachelor of Arts (Liberal Arts)  
LUCILE CARTER, Bachelor of Science (Agriculture)  
JOSEPH BERNARD CASSERLY, Bachelor of Science (Agriculture)  
WILLIAM HAROLD CHAMBERS, Bachelor of Science (Agriculture)  
HARI CHAND, Bachelor of Science (Electrical Engineering)  
EDWARD NEAL CHAPMAN, Bachelor of Science (Chemical Engineering\*)  
RALPH DWYER CLINTON CHAPMAN, Bachelor of Arts (Liberal Arts)  
YUN TIN CHENG, Bachelor of Arts (Liberal Arts\*)  
GLEN CHRISTY, Bachelor of Music\*  
ELMER ALLEN CLAAR, Bachelor of Arts (Liberal Arts)  
HELEN BEULAH CLARK, Bachelor of Arts (Liberal Arts)  
IRL REUBEN CLINE, Bachelor of Science (Civil Engineering)  
IRA NEWTON CLEVER, Bachelor of Science (Municipal and Sanitary Engineering)  
DAVID CLYMAN, Bachelor of Science (Architectural Engineering)  
MILDRED LEANN COBURN, Bachelor of Arts (Liberal Arts\*)  
CHARLES BLAKE COCHRAN, Bachelor of Arts (Science)  
HARRY FRANCIS COGGDALL, Bachelor of Science (Agriculture)  
FRANK MAYNARD COLCORD, Bachelor of Science (Agriculture)  
PAUL WAYNE COLEMAN, Bachelor of Science (Agriculture)  
MARY ELIZABETH COLLOM, Bachelor of Arts (Liberal Arts)  
HAROLD EDWARD COLSON, Bachelor of Science (Agriculture)  
DANIEL FRANKLIN COMSTOCK, Bachelor of Arts (Liberal Arts)  
BEATRICE VIRGINIA COBLEY, Bachelor of Arts (Liberal Arts)  
EULA ETHELYN CORDELL, Bachelor of Arts (Liberal Arts)  
SEYMOUR CORLEY, Bachelor of Science (Civil Engineering)  
CHESTER McELFRESH CRAIN, Bachelor of Arts (Liberal Arts)  
CHALMERS WOODRUFF CRAWFORD, Bachelor of Science (Agriculture)  
HELEN LUCILE CRAWFORD, Bachelor of Arts (Science)  
EDWARD WOODIN CREIGHTON, Bachelor of Science (Agriculture)  
LUCRETIA CRESSEY, Bachelor of Arts (Liberal Arts)  
EDWARD CRISS, Bachelor of Science (Agriculture)  
HAROLD LANE CUMMINGS, Bachelor of Arts (Liberal Arts)  
ANNA ELIZABETH DAUGHERTY, Bachelor of Arts (Liberal Arts)  
SAMUEL SYLVESTER DAVIS, Bachelor of Science (Agriculture)  
HELEN MARIE DAWSON, Bachelor of Arts (Liberal Arts)  
HOMER WARD DEAKMAN, Bachelor of Science (Civil Engineering)  
BENJAMIN HARRISON DECKER, Bachelor of Science (Electrical Engineering)  
WILLIAM CHARLES DEISS, Bachelor of Science (Electrical Engineering)  
JACK ERWIN DEMUTH, Bachelor of Science (Civil Engineering)  
CLARENCE GORDON DESWARTE, Bachelor of Science (Electrical Engineering)  
OSCAR CASPER DETERING, Bachelor of Arts (Liberal Arts)  
LULU BELLE DEXTER, Bachelor of Music\*  
THOMAS WILBUR DIECKMANN, Bachelor of Arts (Liberal Arts\*)  
ALICE MARGARET DIETZER, Bachelor of Arts (Liberal Arts)

\*With thesis.

ESSEL RAY DILLAVOU, Bachelor of Arts (Liberal Arts)  
 IRA WILBUR DINGLEDINE, Bachelor of Arts (Science)  
 BERNHARD ERNST GEORGE DIRKS, Bachelor of Science (Architecture)  
 EARL JOSEPH DIX, Bachelor of Science (Electrical Engineering)  
 VERNE FOSTER DOBBINS, Bachelor of Science (Electrical Engineering)  
 MARGARET ISABELLA DOHERTY, Bachelor of Music\*  
 ETHEL MARY DOLE, Bachelor of Science (Agriculture)  
 LILLIAN DORA DOLE, Bachelor of Arts (Science\*)  
 JUSTIN ALOYSIUS DOMAS, Bachelor of Arts (Science)  
 HENRY DUBIN, Bachelor of Science (Architecture)  
 SVEN DUNER, Bachelor of Science (Agriculture)  
 LAWRENCE HENRY DUNHAM, Bachelor of Science (Chemical Engineering\*)  
 DAVID WOODS DUNLAP, Bachelor of Science (Agriculture)  
 ELIZABETH MOORE DUNN, Bachelor of Arts, (Liberal Arts)  
 MARSHALL SIMEON DUTTON, Bachelor of Science (Municipal and Sanitary Engineering)  
 HENRY CHARLES ECKSTEIN, Bachelor of Arts (Science\*)  
 EDITH EDGAR, Bachelor of Arts (Liberal Arts)  
 ALWIN CLYDE EIDE, Bachelor of Science (Chemical Engineering\*)  
 MILDRED ROACH ELDER, Bachelor of Arts (Liberal Arts)  
 ARAM MOVSES ELEAZARIAN, Bachelor of Science (Electrical Engineering)  
 EDWARD CHARLES ELLES, Bachelor of Arts (Liberal Arts)  
 JEANNETTE MORRISON ENGLE, Bachelor of Arts (Liberal Arts)  
 RUTH ERNEST, Bachelor of Arts (Science)  
 WALTER BOYNTON ERWIN, Bachelor of Arts (Liberal Arts)  
 LEO ESLICK, Bachelor of Science (Mechanical Engineering)  
 PHILIP HIRAM EVERHART, Bachelor of Arts (Liberal Arts)  
 FRANK WEBSTER FARLEY, Bachelor of Science (Agriculture\*)  
 ORENA FARMER, Bachelor of Arts (Liberal Arts)  
 FAY EDWARD FAULKNER, Bachelor of Arts (Science)  
 GUY COLUMBUS FAUROTE, Bachelor of Science (Architecture)  
 FLORENCE FEHRMANN, Bachelor of Arts (Liberal Arts)  
 KAIMIN KAY FENG, Bachelor of Science (Civil Engineering)  
 CLARENCE MILFORD FERGUSON, Bachelor of Science (Agriculture)  
 STELLA BELLE FINNEY, Bachelor of Arts (Liberal Arts)  
 JULIAN LOUNSBUROUGH FISH, Bachelor of Science (Agriculture)  
 ABIGAIL ELIZA FISHER, Bachelor of Arts (Liberal Arts)  
 HAROLD LEE FLODIN, Bachelor of Science (Mechanical Engineering)  
 ALDEN KNOWLTON FOGG, Bachelor of Science (Civil Engineering)  
 GOOEY YUE FONG, Bachelor of Science (Electrical Engineering)  
 EVERETT ORREN FONTAINE, Bachelor of Arts (Liberal Arts)  
 FRANK ALFRED FORTY, Bachelor of Science, (Electrical Engineering)  
 DONALD DEVERE FOSTER, Bachelor of Arts (Liberal Arts\*)  
 WILEY MARION FOWLER, Bachelor of Arts (Liberal Arts)  
 DISK SYLVESTER FRAYER, Bachelor of Science (Civil Engineering)  
 GEORGE CARLYLE FRAZER, Bachelor of Science (Agriculture)  
 ARTHUR OWEN FRAZIER, Bachelor of Arts (Liberal Arts)  
 HAZEL MARY FRYE, Bachelor of Arts (Liberal Arts)  
 ELIZABETH GENEVIEVE FULLER, Bachelor of Arts (Liberal Arts\*)  
 HAROLD COULON FULLER, Bachelor of Science (Architecture)  
 CLARE CURTISS GAMBLE, Bachelor of Arts (Liberal Arts)  
 JOHN LOW GARDINER, Bachelor of Arts (Liberal Arts)  
 WILLIAM RAYMOND GARTEN, Bachelor of Science (Science)  
 EDWARD FRANKLIN GEHRIG, Bachelor of Science (Mechanical Engineering)  
 CHARLES FRANCIS GEIGER, Bachelor of Science (Ceramic Engineering\*)  
 LESLIE GODFREY GEORGE, Bachelor of Arts (Liberal Arts)  
 CHARLES RANNELLE GIBSON, Bachelor of Science (Agriculture)  
 MABLE HELEN GIBSON, Bachelor of Science (Agriculture)  
 GEORGE THALLON GILL, Bachelor of Science (Agriculture)  
 LEONARD NASON GILMORE, Bachelor of Science (Agriculture)  
 ROY THOMAS GLASSCO, Bachelor of Science (Agriculture)  
 WALTER EARL GLOVER, Bachelor of Science (Architecture)  
 ELEANOR GODFREY, Bachelor of Arts (Liberal Arts)  
 IRMA GRETCHEN GOEDEL, Bachelor of Arts (Liberal Arts)  
 ROY ALLEN GOFF, Bachelor of Science (Agriculture)  
 WALDO EMERSON GOLDEN, Bachelor of Arts (Science)  
 WESLEY BARTON GOLDEN, Bachelor of Arts (Liberal Arts\*)  
 ELLIS RALPH GOLDMAN, Bachelor of Science (Civil Engineering)  
 ARZAPALO ERNESTO GOMEZ, Bachelor of Science (Civil Engineering)  
 VERA OPLE GOSSETT, Bachelor of Arts (Liberal Arts)  
 ELIZABETH ELLEN GRAHAM, Bachelor of Arts (Liberal Arts)  
 PERRY HENRY GRAVES, Bachelor of Arts (Liberal Arts)  
 ALTA GREEN, Bachelor of Arts (Liberal Arts\*)  
 EULALIA GREEN, Bachelor of Arts (Liberal Arts)  
 RALPH GREEN, Bachelor of Science (Civil Engineering)  
 ROLAND EVERETT GREENBURG, Bachelor of Science (Mechanical Engineering)  
 JOSEPH NATHANIEL GREENE, Bachelor of Science (Agriculture)  
 JOHN MITCHELL GRIFFIN, Bachelor of Science (Agriculture)  
 MILDRED ELIZABETH GRIFFITH, Bachelor of Arts (Liberal Arts)  
 JAMES HOWARD GRIFTNER, Bachelor of Science (Mining Engineering)  
 GEORGE DURFEE GRISWOLD, Bachelor of Science (Mechanical Engineering)  
 AUGUSTUS HENRY GRUNEWALD, JR., Bachelor of Science (Agriculture)  
 LILLIAN IRENE GUFFIN, Bachelor of Arts (Liberal Arts)

\*With thesis.

- EDITH GWINN, Bachelor of Arts (Liberal Arts)  
 VERNON WILLIAM HAAG, Bachelor of Science (Chemistry\*)  
 GEORGE WILLIAM HAAN, Bachelor of Arts (Science)  
 ARTHUR HAGENER, Bachelor of Science (Civil Engineering)  
 WILLIAM STILES HAGGOTT, Bachelor of Science (Electrical Engineering)  
 LILE GWINNE HALL, Bachelor of Science (Agriculture)  
 HENRY JAMES HALTERMAN, Bachelor of Science (Mechanical Engineering)  
 GERTRUDE HALUSKA, Bachelor of Arts (Liberal Arts\*)  
 ANDREW BAKER HAMMITT, Bachelor of Science (Architectural Engineering)  
 MARGUERITE MARY HANFORD, Bachelor of Arts (Liberal Arts)  
 HUBERT HENRY HARRIS, Bachelor of Science (Agriculture)  
 LOIS MYRTLE HARRIS, Bachelor of Arts (Science)  
 MANDEL H HARRIS, Bachelor of Science (Architecture)  
 EUGENE MILTON HARSCH, Bachelor of Science (Agriculture)  
 ROLAND EMERSON HART, Bachelor of Science (Electrical Engineering)  
 NAOMA R HARTFORD, Bachelor of Arts, (Liberal Arts)  
 ROY HARRISON HASLUND, Bachelor of Science (Architecture)  
 CARL HAUBER, Bachelor of Science (Architecture)  
 FRED ALBERT HEALY, Bachelor of Science (Agriculture)  
 EDITH MARY HEATH, Bachelor of Arts (Liberal Arts)  
 TREVOR MORSE HEATH, Bachelor of Science (Agriculture)  
 JOHN FRANKLIN HEDGCOCK, JR., Bachelor of Science (Agriculture)  
 JOHN HARRISON HEDGCOCK, Bachelor of Science (Agriculture)  
 ALFRED MARTIN HEINZELMANN, Bachelor of Science (Chemical Engineering\*)  
 LINN HELANDER, Bachelor of Science (Mechanical Engineering)  
 LILLIE ISABEL HELGELAND, Bachelor of Arts (Liberal Arts)  
 CHESTER ABRAM HEMPHILL, Bachelor of Science (Agriculture)  
 MARY ANNE HENRY, Bachelor of Arts (Liberal Arts)  
 RALPH LEROY HERMANN, Bachelor of Science (Electrical Engineering)  
 JAMES BURN HICKMANN, Bachelor of Arts (Liberal Arts)  
 LOUIS JOHN HILLS, Bachelor of Science, (Municipal and Sanitary Engineering)  
 ROBERT BRUCE HINMAN, Bachelor of Science (Agriculture)  
 CLARA LILLIE HIRTZEL, Bachelor of Arts (Liberal Arts)  
 EARL WILKIE HITCHCOCK, Bachelor of Science (Agriculture)  
 AGNES VIRGINIA HITT, Bachelor of Arts (Liberal Arts)  
 KATHERINE HITT, Bachelor of Arts (Liberal Arts)  
 FRANK A HOERNER, Bachelor of Science (Science\*)  
 ANNA CATHRYN HOFFERT, Bachelor of Arts (Liberal Arts)  
 ARTHUR CHRISTOPHER HOFFMAN, Bachelor of Science (Agriculture)  
 NAI CHING HO, Bachelor of Arts (Liberal Arts)  
 MAURICE ELON HOIT, Bachelor of Science (Agriculture)  
 HENRY WALTER HOLLARD, Bachelor of Science (Agriculture)  
 NOBLE PARKER HOLLISTER, Bachelor of Science (Agriculture)  
 MAX HOLMSBURGER, JR., Bachelor of Science (Mechanical Engineering)  
 CLIFFORD FIROVED HOOD, Bachelor of Science (Electrical Engineering)  
 WILLIAM HORNAL, Bachelor of Science (Agriculture)  
 CHARLES DEAN HOWE, Bachelor of Arts (Liberal Arts)  
 MARIE ESDA HUBBARD, Bachelor of Arts (Liberal Arts)  
 CURTIS CLAY HUBBART, Bachelor of Science (Mining Engineering)  
 ARTHUR HERMAN HUISKEN, Bachelor of Science (Chemical Engineering\*)  
 SIDNEY MARION HULL, Bachelor of Science (Chemistry\*)  
 GUY HAROLD HUSTED, Bachelor of Science (Agriculture)  
 LEO ALFRED HUSTED, Bachelor of Science (Agriculture)  
 MARJORIE HUTCHINS, Bachelor of Music\*  
 NOEL CARLYSLICE ICE, Bachelor of Arts (Liberal Arts)  
 STANLEY PFERRER IRVIN, Bachelor of Arts (Liberal Arts)  
 THOMAS RALPH ISAACS, Bachelor of Science (Agriculture)  
 MABEL CLARE JACKSON, Bachelor of Arts (Liberal Arts)  
 WALTER HERMAN JACOBSEN, Bachelor of Arts (Liberal Arts\*)  
 RANJIT SINGH JAIN, Bachelor of Science (Electrical Engineering)  
 EDWARD ALLEN JAMES, Bachelor of Science (Mechanical Engineering)  
 LENTON WILLIS JAMES, Bachelor of Science (Agriculture)  
 WILLIAM BANCROFT JARVIS, Bachelor of Arts (Liberal Arts)  
 WALTER WILSON JENNINGS, Bachelor of Arts (Liberal Arts\*)  
 MILTON OWEN JENSEN, Bachelor of Arts (Liberal Arts)  
 HUBERT JESSEN, Bachelor of Science (Agriculture)  
 HAROLD SUCESE JOHNSON, Bachelor of Science (Architecture)  
 FLORENCE RUBY JOHNSON, Bachelor of Arts (Liberal Arts)  
 CLIFFORD CROUCH JONES, Bachelor of Science (Agriculture)  
 MILTON DOERR JONES, Bachelor of Science (Electrical Engineering)  
 PAUL ERASTUS JONES, Bachelor of Science (Architecture)  
 JOO HING JUE, Bachelor of Arts (Liberal Arts)  
 MARJORIE MARIE JUNE, Bachelor of Arts (Liberal Arts)  
 RUTH AMANDA KAAR, Bachelor of Arts (Liberal Arts)  
 GUY WILFORD KARRAKER, Bachelor of Arts (Liberal Arts)  
 FRANCES FORD KEEN, Bachelor of Arts (Liberal Arts)  
 ALBERT WILLIAM KEENE, Bachelor of Science (Ceramics\*)  
 FLORENCE KELLER, Bachelor of Arts (Liberal Arts)  
 AMELIA LUCINDA KELLOGG, Bachelor of Arts (Science\*)  
 LUTHER EUGENE KENNEDY, Bachelor of Arts (Science)  
 PEARLE KEENE KERNALL, Bachelor of Science (Agriculture)  
 LESLIE ARTHUR KIBBE, Bachelor of Science (Architectural Engineering)

\*With thesis.

EDWARD LUTHER KING, Bachelor of Science (Agriculture)  
 WAYNE ISAAC KIRBY, Bachelor of Arts (Science)  
 HELMUTH JULIUS KIRCHER, Bachelor of Science (Agriculture)  
 HADDON SPURGEON KIRK, Bachelor of Arts (Liberal Arts\*)  
 ARCHIBALD FARLEY KIRKLAND, Bachelor of Science (Architecture)  
 GEORGE CHARLES KLEHM, JR., Bachelor of Science (Floriculture\*)  
 LLOYD DUNAWAY KNAPP, Bachelor of Science (Civil Engineering)  
 EDWARD FRANZ KNEMEYER, Bachelor of Science (Architecture)  
 WILBERT GEORGE KNOEBEL, Bachelor of Science (Architecture)  
 JOSEPH LUDWICK KOBLANSKI, Bachelor of Science (Architectural Engineering)  
 CHARLES EDWARD KOCH, Bachelor of Science (Mechanical Engineering)  
 HARRY CHARLES KOCH, Bachelor of Science (Mechanical Engineering)  
 CARRIE ADELAIDE KROMER, Bachelor of Arts (Liberal Arts)  
 OTTO ARTHUR KRUEGER, Bachelor of Science (Architectural Engineering)  
 WILFRED HENRY KUHN, Bachelor of Science (Civil Engineering)  
 GEORGE LANE KYLE, Bachelor of Science (Electrical Engineering)  
 JOHN SAMUEL LAFFERTY, Bachelor of Science (Architectural Engineering)  
 GRACE ETHERIDGE LA FRENZ, Bachelor of Arts (Liberal Arts)  
 LAMBERT LINUS LARSON, Bachelor of Science (Chemical Engineering\*)  
 LOUIS JAMES LASKIN, Bachelor of Science (Architecture)  
 IRMA ADA LATZER, Bachelor of Arts (Liberal Arts)  
 EDWARD GEORGE LAUTERBACH, Bachelor of Science (Agriculture)  
 MARY MARIA LAWSON, Bachelor of Arts (Liberal Arts)  
 BRADLEY CLEAVER LAWTON, Bachelor of Arts (Liberal Arts)  
 ARTHUR BOWEN LEAVENS, Bachelor of Science (Architectural Engineering)  
 IZORA LEE, Bachelor of Science (Agriculture)  
 GERTRUDE EMMA LEHMANN, Bachelor of Arts (Liberal Arts)  
 CARL HELGE SAMUEL LERBERG, Bachelor of Science (Electrical Engineering)  
 GLADYS ADELINE LEONARD, Bachelor of Arts (Liberal Arts)  
 WILLIAM NATHAN LEONARD, Bachelor of Science (Agriculture)  
 ARTHUR CHARLES GUSTAV LEVERENZ, Bachelor of Science (Mechanical Engineering)  
 TU HUNG LIANG, Bachelor of Science (Agriculture)  
 CURTIS ROY LIGHT, Bachelor of Science (Civil Engineering)  
 SILAS CARL LINBARGER, Bachelor of Science (Ceramic Engineering\*)  
 GEORGE ISADORE LINDBERG, Bachelor of Science (Mechanical Engineering)  
 GRACE LINDER, Bachelor of Arts (Liberal Arts)  
 IDA HUBBARD LINDLEY, Bachelor of Arts (Liberal Arts)  
 GEORGE HEATH LINDSEY, Bachelor of Science (Electrical Engineering)  
 HILAH JANE LINK, Bachelor of Arts (Liberal Arts)  
 THOMAS HAROLD LLOYD, Bachelor of Science (Agriculture)  
 FERN MARGUERITE LOING, Bachelor of Arts (Liberal Arts)  
 JOSEPH CHARLES LONGUEVILLE, Bachelor of Science (Science)  
 FREDERICK GUNARD LUNDGREEN, Bachelor of Science (Mechanical Engineering)  
 ROY SIMEON LUNDIN, Bachelor of Science (Agriculture)  
 ROBERT STOOKEY LUTZ, Bachelor of Science (Electrical Engineering)  
 LOUIS THORNTON LYMAN, Bachelor of Science (Agriculture)  
 GRACE MACBETH, Bachelor of Music\*  
 CHARLES HARTMAN McCUALEY, Bachelor of Science (Architecture)  
 CARRIE LUCILE McCUALEY, Bachelor of Arts (Liberal Arts)  
 HARRY BRUCE McCUGAGE, Bachelor of Arts (Science\*)  
 GLENN WILLIAM McCUEN, Bachelor of Science (Agriculture\*)  
 HARRY WEBER McCULLOCH, Bachelor of Arts (Science)  
 ORA MAC McGHEE, Bachelor of Science (Agriculture)  
 EDNA BELLE MCKEE, Bachelor of Arts (Liberal Arts)  
 JOHN LATIMER MCKEOWN, Bachelor of Science (Architectural Engineering)  
 GEORGE BURR McMILLEN, Bachelor of Arts (Liberal Arts\*)  
 MARY CECILIA McNALLY, Bachelor of Arts (Liberal Arts)  
 EARLE STEELE MCPHERSON, Bachelor of Science (Mechanical Engineering)  
 NELLIE FRANCES MCVEIGH, Bachelor of Arts (Liberal Arts)  
 HELEN LOUISE MADDEN, Bachelor of Music\*  
 AUGUST MADER, Bachelor of Science (Architectural Engineering)  
 ROBERT CARLETON MALEY, Bachelor of Science (Mechanical Engineering)  
 HENRY ADAM LEWIS MARBACH, Bachelor of Science (Civil Engineering)  
 MARGARET ANN MARBOLD, Bachelor of Arts (Liberal Arts)  
 SARAH ANN MARKS, Bachelor of Arts (Science)  
 LEO DANIEL MARQUIS, Bachelor of Science (Architecture)  
 FREDERICK AUGUST KUHS MARKS, Bachelor of Science (Civil Engineering)  
 RUTH KEEFER MATTHEWS, Bachelor of Arts (Liberal Arts)  
 GLENN MARLOW MATTESEN, Bachelor of Science (Agriculture)  
 JOHN DWIGHT MATTISON, Bachelor of Science (Civil Engineering)  
 EDWIN WHITAKER MATTOON, Bachelor of Arts (Science\*)  
 MARGARET MILDRED MEILHOP, Bachelor of Arts (Science)  
 NATHAN MELTZ, Bachelor of Science (Agriculture)  
 GEORGE HENRY MENGEI, Bachelor of Science (Chemistry\*)  
 HARRY GEORGE MENKE, Bachelor of Science (Municipal and Sanitary Engineering)  
 CARL ATGELD METZ, Bachelor of Science (Civil Engineering)  
 JOHN HAROLD MILLER, Bachelor of Science (Electrical Engineering)  
 ORA LUCILE MILLER, Bachelor of Arts (Liberal Arts)  
 WILLIAM PIT MILLER, Bachelor of Science (Agriculture)  
 EDNA VARNER MILLIZEN, Bachelor of Arts (Liberal Arts)  
 AGNES MABEL MILNE, Bachelor of Arts (Liberal Arts)  
 GROVER IRA MITCHELL, Bachelor of Science (Mechanical Engineering)

\*With thesis.

ALBERT RICHARDSON MONTAGUE, Bachelor of Science (Civil Engineering)  
 HERBERT JACKSON MOORE, Bachelor of Science (Agriculture)  
 CHESTER ARTHUR MORGAN, Bachelor of Science (Mining Engineering)  
 WILLIAM ALGERNON KINGSMILL MORKEL, Bachelor of Science (Agriculture)  
 RALPH LEONARD MORRELL, Bachelor of Science (Civil Engineering)  
 VERNON LESLIE MORRIS, Bachelor of Science (Architectural Engineering)  
 EDWARD HENRY MORRISSEY, Bachelor of Arts (Liberal Arts)  
 HELEN SINCLAIR MORRISON, Bachelor of Science (Agriculture)  
 JOHN HAMILTON MORSE, Bachelor of Arts (Liberal Arts)  
 GLADYS IONE MOSS, Bachelor of Arts (Liberal Arts)  
 RENZO EDMOND MUCKELROY, Bachelor of Science (Agriculture)  
 FORREST HAMILTON MURRAY, Bachelor of Arts (Science\*)  
 RACHEL FLOSSIE MYERS, Bachelor of Arts (Liberal Arts)  
 CLARENCE ARTHUR NEBEL, Bachelor of Science (Agriculture)  
 IDRIS NELSON, Bachelor of Science (Ceramics\*)  
 MILTON NELS NELSON, Bachelor of Arts (Liberal Arts)  
 RALPH AUGUSTUS NELSON, Bachelor of Science (Chemical Engineering\*)  
 FLORENCE EDITH NEVILLE, Bachelor of Arts (Science)  
 WALTER LESTER NICHOLS, Bachelor of Science (Civil Engineering)  
 PETER JACOB NILSEN, Bachelor of Science (Electrical Engineering)  
 CARL RAGNAR NILSSON, Bachelor of Science (Mechanical Engineering)  
 ROE NIVER, Bachelor of Arts (Science\*)  
 EMILIE MARIE NOACK, Bachelor of Arts (Liberal Arts)  
 WESLEY KAYLER NORRIS, Bachelor of Science (Civil Engineering)  
 PROCTOR ALBERT NOWLEN, Bachelor of Science (Agriculture)  
 ARTHUR ALLEN ODELL, Bachelor of Arts (Liberal Arts)  
 IRENE BALFOUR OLIN, Bachelor of Arts (Liberal Arts)  
 ANNA MARGARET OLSEN, Bachelor of Arts (Science)  
 HARRY CHRISTIAN OLSENG, Bachelor of Science (Agriculture)  
 ROBERT HAROLD OLSON, Bachelor of Science (Architectural Engineering)  
 HENRY AKI PANHOE, Bachelor of Science (Civil Engineering)  
 FREDERICK WILLIAM PANHORST, Bachelor of Science (Civil Engineering)  
 RAYMOND WEBB PARKER, Bachelor of Science (Electrical Engineering)  
 WARREN KINDER PARKER, Bachelor of Science (Agriculture)  
 WILMA GAY PARKS, Bachelor of Arts (Science)  
 NORMAN BOND PATTEN, JR., Bachelor of Science (Architectural Engineering)  
 WILBUR OTIS PENDARVIS, Bachelor of Arts (Liberal Arts)  
 MARION LOUISE PERCIVAL, Bachelor of Arts (Liberal Arts)  
 MARGARET CAMPBELL PERRY, Bachelor of Arts (Liberal Arts)  
 RALPH GROVER PERRY, Bachelor of Science (Mining Engineering)  
 HORACE HOWARD PHELPS, Bachelor of Science (Agriculture)  
 GEORGE HYDE PIKE, Bachelor of Arts (Liberal Arts\*)  
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 JOHN JOSEPH PITTS, JR., Bachelor of Science (Agriculture)  
 ERNEST HOWARD POOL, Bachelor of Arts (Liberal Arts)  
 LAWRENCE ARTHUR POPE, Bachelor of Science (Electrical Engineering)  
 FREDERICK WILLIAM POSTEL, Bachelor of Arts (Liberal Arts)  
 EMERY VERN POTTER, Bachelor of Science (Electrical Engineering)  
 FRED RICHMOND POWERS, Bachelor of Science (Agriculture)  
 ADA ROBERTA PUGH, Bachelor of Arts (Liberal Arts)  
 RAYMOND HARRY PURDY, Bachelor of Science (Architecture)  
 EMMA STINE PURSLEY, Bachelor of Arts (Liberal Arts)  
 FRANK WHITCOMB PUSEY, Bachelor of Science (Agriculture\*)  
 RUDOLPH RADABAUGH, Bachelor of Science (Science)  
 EUGENE ROBERT PAUL BALL, Bachelor of Science (Civil Engineering)  
 THOMAS DAVID RANDALL, Bachelor of Science (Civil Engineering)  
 JOHN HOLLY RAPP, Bachelor of Arts (Liberal Arts)  
 WILLARD COLE RAPPLEYE, Bachelor of Arts (Science)  
 WILLIAM OWEN RATHFON, Bachelor of Science (Ceramic Engineering\*)  
 BANKIM CHANDRA RAY, Bachelor of Science (Electrical Engineering)  
 HUGH LIGHT RAY, Bachelor of Science (Mechanical Engineering)  
 ALLAN BURNES RAYBURN, Bachelor of Science (Agriculture)  
 WILLIAM THOMAS REACE, Bachelor of Science (Electrical Engineering)  
 GRATIA JEWETT REED, Bachelor of Arts (Liberal Arts)  
 CHARLES HENRY REHLING, Bachelor of Science (Agriculture)  
 MOLLIE REID, Bachelor of Arts (Liberal Arts)  
 JULIA ELIZABETH RENNER, Bachelor of Arts (Liberal Arts)  
 GUY BENJAMIN RENO, Bachelor of Arts (Liberal Arts)  
 EDNA KERR RENTCHLER, Bachelor of Arts (Science)  
 CHLOE JAMES JAREK RHEA, Bachelor of Science (Railway Electrical Engineering)  
 LOUIS RIBBACK, Bachelor of Science (Agriculture)  
 DONALD BERT RICH, Bachelor of Science (Agriculture)  
 LENORE RICHARDS, Bachelor of Arts (Liberal Arts)  
 PERCY McCCLURE RICHARDS, Bachelor of Science (Electrical Engineering)  
 FRANK B RICHARDSON, JR., Bachelor of Science (Agriculture)  
 JUANITA BONNIE RICHARDSON, Bachelor of Science (Agriculture)  
 GEORGE KERNS RICHMOND, Bachelor of Arts (Liberal Arts)  
 DOROTHY SUE RINAKER, Bachelor of Arts (Liberal Arts)  
 ROYAL WANE RITCHIEY, Bachelor of Science (Agriculture)  
 NANNIE BAXTER RIVES, Bachelor of Arts (Liberal Arts)  
 RUTH ROBBINS, Bachelor of Arts (Liberal Arts)  
 HARRY BARRETT ROGERS, Bachelor of Science (Civil Engineering)

\*With thesis.

JOSEPH FRED ROMINE, Bachelor of Science (Agriculture)  
 LOUIS ROSSET, Bachelor of Science (Electrical Engineering)  
 GEORGE BENJAMIN RUBY, Bachelor of Science (Chemical Engineering\*)  
 ORLIE RUE, Bachelor of Science (Mechanical Engineering)  
 EARLE UNDERWOOD RUGG, Bachelor of Arts (Liberal Arts\*)  
 MAX RUKIN, Bachelor of Arts (Liberal Arts\*)  
 DON CAMERON RUNDLES, Bachelor of Science (Agriculture)  
 JOHN CLINTON RUNDLES, Bachelor of Science (Agriculture)  
 IRA LEON RUSH, Bachelor of Science (Architecture)  
 FRANCES MARIE RUTENBER, Bachelor of Arts (Liberal Arts)  
 ROWLAND WILLIAM RUTH, Bachelor of Science (Mechanical Engineering)  
 EUGENIA ELIZABETH RUTHERFORD, Bachelor of Arts (Liberal Arts)  
 HENRY WHITE RYTHE, Bachelor of Science (Mechanical Engineering)  
 IRA CARL SAILER, Bachelor of Science (Agriculture)  
 GEORGE WASHINGTON SALISBURY, Bachelor of Science (Agriculture)  
 RAPHAEL ADELFORD SAMUELSON, Bachelor of Science (Electrical Engineering)  
 GEORGE EDWARD SANDERS, Bachelor of Science (Science)  
 Q NATHAN SAPESTON, Bachelor of Science (Electrical Engineering)  
 MARIE SAVAGE, Bachelor of Arts (Liberal Arts)  
 HENRY GREELEY SAWYER, Bachelor of Science (Chemical Engineering\*)  
 HYMEN SCHETNITZ, Bachelor of Arts (Liberal Arts)  
 PHILIP GEORGE SCHIESSWOHL, Bachelor of Arts (Liberal Arts)  
 DANIEL CHARLES SCHNEIDER, Bachelor of Science (Mechanical Engineering)  
 EUGENE SCHOBINGER, Bachelor of Science (Municipal and Sanitary Engineering)  
 HELEN KATHERINE SCHOEPFERLE, Bachelor of Arts (Liberal Arts)  
 EDITH CAROLYN SCHROEDER, Bachelor of Arts (Liberal Arts)  
 RUDOLPH WEBSTER SCHUCKER, Bachelor of Science (Architecture)  
 EDWARD ALBERT SCHWING, Bachelor of Science (Agriculture\*)  
 MILDRED SCROGGIN, Bachelor of Arts (Liberal Arts)  
 KATHERINE SEAMAN, Bachelor of Arts (Liberal Arts)  
 NATHAN COOK SEIDENBERG, Bachelor of Arts (Liberal Arts)  
 BEULAH ELIZABETH SELSAM, Bachelor of Arts (Liberal Arts\*)  
 GEORGE FREEMAN SENNEFF, Bachelor of Science (Agriculture)  
 ERNEST WILFORD SEYSTER, Bachelor of Arts (Science)  
 ELLIS MARCH SHAW, Bachelor of Science (Architectural Engineering)  
 CARL LEE SHERMAN, Bachelor of Science (Civil Engineering)  
 JOHN P SHIELDS, Bachelor of Science (Architectural Engineering)  
 WALTER SCOTT SHIVELY, Bachelor of Science (Mechanical Engineering)  
 CHARLES HARMON SHOOK, Bachelor of Science (Architectural Engineering)  
 CHARLES WHEELER SHOOK, Bachelor of Arts (Liberal Arts)  
 TERRILL DEAN SHONTZ, Bachelor of Arts (Liberal Arts\*)  
 ARTHUR ROBERT SIEBENS, Bachelor of Science (Agriculture)  
 JOHN MEADE SILKMAN, Bachelor of Science (Mining Engineering)  
 WALTER HENRY SIMON, Bachelor of Science (Architecture)  
 CLARENCE EDGAR SIMS, Bachelor of Science (Chemical Engineering\*)  
 HARVEY FRANK SKADDON, Bachelor of Science (Architecture)  
 MAYNARD ELMER SLATER, Bachelor of Science (Agriculture\*)  
 ELIZABETH MORREE SMITH, Bachelor of Music\*  
 GLADYS MAE SMITH, Bachelor of Arts (Liberal Arts)  
 GEORGE WALTER SMITH, Bachelor of Science (Architectural Engineering)  
 PAUL MILLER SMITH, Bachelor of Science (Agriculture)  
 STEWART TRACY SMITH, Bachelor of Science (Architectural Engineering)  
 ELIZABETH ELLICE SMOOT, Bachelor of Music\*  
 HELEN CARPENTER SNOOK, Bachelor of Music\*  
 JOHN DONALD SNOOK, Bachelor of Science (Chemical Engineering\*)  
 RAFAEL ARCANGEL SOTO, Bachelor of Arts (Liberal Arts)  
 VICTOR ELWIN SPENCER, Bachelor of Science (Agriculture)  
 WILLIAM W STAPLER, Bachelor of Science (Chemical Engineering\*)  
 SELDEN LEWIS STEBBINS, Bachelor of Arts (Science)  
 WILLIAM JOHN STEINBREDER, Bachelor of Arts (Science)  
 HERBERT ANGUS STEINMAYER, Bachelor of Arts (Liberal Arts)  
 FERNANDIN HENRY STEINMETZ, Bachelor of Science (Agriculture)  
 BERT LUDENS STERNBERG, Bachelor of Science (Agriculture)  
 VERNON THOMPSON STEVENS, Bachelor of Arts (Liberal Arts\*)  
 EARLE HENRY STEWART, Bachelor of Science (Mechanical Engineering)  
 HENRY SYLVESTER STICE, Bachelor of Arts (Science)  
 IRA S STINSON, Bachelor of Science (Municipal and Sanitary Engineering)  
 BLANCHE STIPE, Bachelor of Music\*  
 RAYMOND DEVRIES STITT, Bachelor of Science (Electrical Engineering)  
 GERALD DARFIELD STOPP, Bachelor of Arts (Liberal Arts)  
 EARL BOYD STOUT, Bachelor of Science (Mechanical Engineering)  
 ROBERT LEON STRANG, Bachelor of Science (Agriculture)  
 FRANK SEWALL STROHEKER, Bachelor of Arts (Liberal Arts)  
 ROBERT AMBROSE STRONG, Bachelor of Science (Mining Engineering); Bachelor of Arts (Science)  
 BUFORD MATTHEWS STUBBLEFIELD, Bachelor of Science (Chemistry\*)  
 ABEL ROSE SUMMERS, Bachelor of Science (Electrical Engineering)  
 MARJORIE SUTCLIFFE, Bachelor of Arts (Liberal Arts)  
 EDITH ANN SWANK, Bachelor of Arts (Liberal Arts)  
 PERRY JEROME SWEENEY, Bachelor of Science (Electrical Engineering)  
 MARY ETHEL SWICK, Bachelor of Arts (Liberal Arts)  
 RUSSELL CLAUDE SWOPE, Bachelor of Arts (Liberal Arts)

\*With thesis.

SHIRO TAKETA, Bachelor of Science (Electrical Engineering)  
 HAROLD ARTHUR TALBERT, Bachelor of Arts (Liberal Arts)  
 CHARLES HAWLEY TAFFING, Bachelor of Science (Architectural Engineering)  
 ALEXANDER STEPHEN TARNOFSKI, Bachelor of Science (Architectural Engineering)  
 LILLIAN CATHERINE TAYLOR, Bachelor of Science (Agriculture)  
 MILO CORNELIUS TAYLOR, Bachelor of Science (Civil Engineering)  
 DEWITT MANLEY THATCHER, Bachelor of Science (Agriculture)  
 JAMES DALE THOM, Bachelor of Arts (Liberal Arts\*)  
 ROBERT ELLSWORTH THOMAS, Bachelor of Science (Civil Engineering)  
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 FRANCIS THOMPSON, Bachelor of Arts (Science)  
 CLARA LOUISE THORNDIKE, Bachelor of Arts (Liberal Arts)  
 LAURENCE EMERSON THORNE, Bachelor of Science (Agriculture)  
 ESTELLA LENORE THURSTON, Bachelor of Arts (Liberal Arts)  
 HENRY WINFRED THURSTON, JR., Bachelor of Science (Agriculture)  
 LEON DENING TILTON, Bachelor of Science (Agriculture)  
 ETHEL TODD, Bachelor of Arts (Liberal Arts)  
 CHARLES LESLIE TROWBRIDGE, Bachelor of Science (Agriculture)  
 MARY LUILLA TROWBRIDGE, Bachelor of Arts (Liberal Arts)  
 ANNE MARIE TURLAY, Bachelor of Arts (Liberal Arts)  
 BRUCE RICHARD UPHAUS, Bachelor of Science (Mechanical Engineering)  
 WILLIAM LAURANCE VANSANT, Bachelor of Science (Mechanical Engineering)  
 GLENN POLAND VAUGHAN, Bachelor of Arts (Liberal Arts)  
 ALEXANDER WAGNER, Bachelor of Arts (Liberal Arts)  
 WILLIAM ANDREW WAGNER, Bachelor of Science (Civil Engineering)  
 JAMES BUTLER WAINWRIGHT, Bachelor of Science (Mechanical Engineering)  
 CARLE CAPRON WALKER, Bachelor of Science (Agriculture)  
 JOHN SAWYER WALKER, Bachelor of Science (Architecture)  
 DOROTHY KEZIAH WALKERLY, Bachelor of Arts (Liberal Arts)  
 FRANK EMIL WALSER, Bachelor of Arts (Liberal Arts)  
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 RALPH WALDO WALWORTH, Bachelor of Science (Agriculture)  
 MAMIE LAWRENCE WARD, Bachelor of Arts (Liberal Arts)  
 EARLE EUGENE WARNER, Bachelor of Science (Electrical Engineering)  
 CHARLES SIDNEY WASHBURN, Bachelor of Science (Electrical Engineering)  
 LESLIE ABRAM WATERBURY, Bachelor of Science (Architectural Engineering)  
 JANE COULSON WATSON, Bachelor of Arts (Liberal Arts)  
 GEORGE WILLIAM WATTS, Bachelor of Science (Mechanical Engineering)  
 HELEN WALLER WEBER, Bachelor of Arts (Liberal Arts)  
 EVA SARAH WEILEFF, Bachelor of Arts (Liberal Arts)  
 CLYDE FREDERICK WEINGARTNER, Bachelor of Science (Architectural Engineering)  
 JOHN MAURICE WELCH, Bachelor of Science (Chemical Engineering\*)  
 FRED SHEAFF WELLS, Bachelor of Science (Mechanical Engineering)  
 MAJORIE CECILIA WELSH, Bachelor of Arts (Liberal Arts)  
 ROGER THOMAS WELSH, Bachelor of Science (Agriculture)  
 VERA GRETCHEN WESSELS, Bachelor of Arts (Liberal Arts)  
 BENJAMIN WHAM, Bachelor of Arts (Liberal Arts)  
 RUSSELL CLAIRE WHEELER, Bachelor of Science (Mechanical Engineering)  
 RAYMOND CHARLES WHITAKER, Bachelor of Science (Architecture)  
 THOMAS KENNETH WHITE, Bachelor of Science (Electrical Engineering)  
 JAMES CHALMERS CAMERON WHITELAW, Bachelor of Science (Ceramic Engineering\*)  
 HORTENSE ELAINE WICKARD, Bachelor of Arts (Liberal Arts)  
 CLARENCE CLINTON WIEDLING, Bachelor of Science (Electrical Engineering)  
 ELON GILBERT WILKINSON, Bachelor of Arts (Liberal Arts)  
 JACKSON HEATH WILKINSON, Bachelor of Science (Civil Engineering)  
 LAURA MAY WILLE, Bachelor of Arts (Liberal Arts)  
 EDWARD ALLEN WILLIFORD, Bachelor of Science (Electrical Engineering)  
 WILLIAM WENN WILSON, Bachelor of Science (Agriculture)  
 CHARLES PRIOR WINTERS, Bachelor of Arts (Liberal Arts)  
 GEORGE ORLANDO WITH, Bachelor of Science (Municipal and Sanitary Engineering)  
 VIOLA ESTHER WOLFE, Bachelor of Arts (Liberal Arts)  
 MABEL CLARA WOMACKS, Bachelor of Arts (Liberal Arts)  
 HARRY THOMAS WOOD, Bachelor of Arts (Liberal Arts)  
 HENRY SOLOMON WOLFE, Bachelor of Science (Agriculture)  
 LENORA MARY WORCESTER, Bachelor of Arts (Liberal Arts)  
 NEWTON ANTHONY WRIGHT, Bachelor of Science (Agriculture)  
 BENJAMIN HARRISON WYCOFF, Bachelor of Science (Agriculture)  
 RAY ORION WYLAND, Bachelor of Arts (Liberal Arts\*)  
 WALLACE WYMAN, Bachelor of Science (Architecture)  
 JAMES FOON ONN YAPP, Bachelor of Science (Civil Engineering)  
 RUTH ELIZABETH YAPP, Bachelor of Arts (Liberal Arts)  
 FLORENCE TERESA YOCH, Bachelor of Science (Agriculture)  
 CLYDE CHARLES YOUNGLOVE, Bachelor of Science (Architectural Engineering)  
 FRED RAYMOND ZAHN, Bachelor of Science (Municipal and Sanitary Engineering)  
 HARRY MEYER ZETER, Bachelor of Science (Agriculture)  
 WILLIAM WALTER ZIEMAN, Bachelor of Science (Chemical Engineering\*)  
 ANTHONY URBAN ZIMMERMAN, Bachelor of Science (Mechanical Engineering)  
 ROY RICHARD ZIFFRODT, Bachelor of Science (Architectural Engineering)  
 JAMES EDWARD ZOLLINGER, Bachelor of Science (Electrical Engineering)

\*With thesis.

## THE COLLEGE OF LAW

## The Degree of Bachelor of Laws

BENJAMIN FRANKLIN ANDERSON  
 RALPH LINDEN BARLOW  
 FLOYD EVANSTON BRITTON  
 HERBERT WILLIAM BYE  
 LYNN CORBLY  
 WESLEY ERETTE CUMMINS, A.B.  
 FRED ALAN DUHADWAY  
 RODNEY CHAMPLIN GLOVER  
 PALMER MACKENZIE GUNNELL  
 ROLAND EUGENE LEOPOLD

THURLOW GIRARD LEWIS  
 RAY TIMOTHY LUNEV  
 TIMOTHY IRLE MCKNIGHT  
 MOSES ELMER NEWELL  
 CHARLES ROY PATTERSON  
 GLENN RATCLIFF  
 NATHAN COOK SEIDENBERG  
 ISAAC SIEGEL  
 CLARENCE THOMAS TERRIL

## The Degree of Doctor of Law

JAMES FEARON BROWN, A.B. 1913

HARRY INGALLS HANNAH, A.B. 1913

## THE LIBRARY SCHOOL

## The Degree of Bachelor of Library Science

MINNIE JOANNA BOLLMAN, A.B., *University of Illinois*, 1910  
 MABEL LOUISE CONAT, A.B., *University of Michigan*, 1909  
 FANNY DUNLAP, Ph.B., *State University of Iowa*, 1905  
 GRACE ADELAIDE ENGLAND, A.B., *Albion College*, 1910  
 ANTOINETTE HELEN GOETZ, A.B., *State University of Iowa*, 1906  
 MARGARET MAY HERDMAN, A.B., *University of Illinois*, 1910  
 FANNY WILDER HILL, A.B., *University of Illinois*, 1910  
 EDITH HYDE, A.B., *Ohio State University*, 1908  
 KATHARINE LEWIS, A.B., *University of Illinois*, 1912  
 ROSE MARGARET MATHER, A.B., *University of Illinois*, 1905  
 NORMA LEE PECK, A.B., *Ottawa University*, 1913  
 ALMA MERIBA PENROSE, A.B., *Oberlin College*, 1901  
 NELLIE READ ROBERTS, A.B., *University of Illinois*, 1913  
 MARY ZELIAETTE TROY, A.B., *University of Alabama*, 1912

Members of the Class of 1885 who received certificates on graduation  
 and upon whom is now conferred the degree of Bachelor of Literature.

(Mrs.) BESSIE WOLF OWENS NEEDHAM

JOSEPHINE M ZELLER

## THE COLLEGE OF MEDICINE

## The Degree of Doctor of Medicine and Surgery

SAMUEL JACOB ALDEN  
 CLAY ADLER  
 KARL A ANDERSON  
 STEWART HARRY ANDERSON  
 SENEKERIM HOVANNES ARAKELIAN  
 MARCELINO ASUZANO  
 ALEXANDER HERBERT BARNETT  
 ERNEST GASTON BEATTY  
 ARTHUR BETTS  
 LEWIS LEONARD BRODSKY  
 PHILLIP HARMON BROUDO  
 DEAN CASSIUS BROWN  
 EARL CURTIS CARR  
 FELICIA HELEN CIENCIARA  
 LAZARUS COHLER  
 JOHN M CONWAY  
 TEOFILO PEDRO CORPUS  
 IRWIN HERBERT CUTLER  
 GEORGE LESLIE DAILEY  
 JAMES WILLIAM DOUGHTY  
 ROSS EDMUND ELVIDGE  
 GEORGE MICHAEL FITZGERALD  
 ANTHONY CARLO FORMUSA  
 DIMITER GEORGE FOURNADJIEFF  
 CHETWYND MARK FRANCHERE  
 HARRY HIRSCH FREILICH  
 DUDLEY CURETON FRISE, Ph.B.  
 ORLANDO MERRILL GOCHNAUR  
 GEORGE JOSEPH GORDON  
 CLARA GRACE GOTTSCHALK  
 MICHAEL GOY  
 REUBEN WADDELL GRAHAM  
 SAUL CHARLES GREENWALD  
 FREDERICK HAHN

ERIC GOSTA HAKANSSON  
 GERHARD FREDERICK HARTWIG  
 GUSTAV GOODMAN HERPE  
 ARTHUR WILLIAM HOAGLUND  
 EINAR HOFF  
 GOLDIE HOFFMAN  
 ABRAHAM RISEL HOLLOWENDER, Ph.B.  
 WILLIAM DAVID HOLLMERS  
 CHARLES WIKOFF JEFFREY  
 WALTER LAWRENCE JOHNSON  
 ALFRED EDWARD JONES  
 MYRON KAHN  
 ELBERT RIFE KING  
 SAMUEL ARTHUR KLEGER  
 ROBERT GOTTFRIED KLEIN  
 LEAF CORT KNIGHT  
 HARRY FURNISS LAMBERT  
 GEORGE MILTON LANDEAU  
 FLOYD BURDICK LANGDON  
 CYRIL JAMES LARKIN  
 HEDDING LIN, A.B., A.M.  
 CARL WILLIAM LUTZ  
 HORACE CHAUNCEY LYMAN  
 EUGENE HENRY McCAFFREY  
 BENJAMIN VAUGHN McCLANAHAN  
 ROBERT LEE MACCORMACK  
 ELEANOR SOPHIA MASSLOW  
 LAWRENCE HAMPSON MAYERS, A.B.  
 WALTER SPAULDING MIX  
 MORTON PATRICK MORSE  
 LESTER IRVING OFNER  
 CLAUDE HARRIS OGDEN  
 FRANCIS PACACK  
 EDWIN PETERSON

CHARLES CLIFFORD PINKERTON  
 CHARLES HENRY REINHARDT  
 JESSE HENRY ROTH, A.B., M.S.  
 PRAMATHIARATH SAHA  
 MARCUS ROY SATHE  
 FRANK JOSEPH SCHICK  
 RICHARD FREDERICK SCHIELE  
 JOSEPH SELIN  
 MARIUS DAVID SENELICK  
 CLEVE RIDLON SENESCALL  
 JEREMY JOSEPH SHARP  
 ARTHUR EDWIN SHELL  
 WALTER SCOTT SIEWERTH  
 DEAN STANLEY SMITH  
 HENRY ALBERT STAIB  
 WILLIAM FREDERICK STEIN  
 SIMON STERN

CHRISTOPHER BROWN STUART  
 THOMAS JOHN SULLIVAN, JR.  
 JACOB MARION SUTHERLAND  
 BION CLAUDE SYVERSON  
 EDWIN ROBERT TALBOT  
 JAMES EDWARD THIELL  
 HARRY EMIL LOUIS TIMM  
 ALBERT VANDER KLOOT  
 MIHRAN AVEDIS VARZABEDIAN, A.B.  
 HARRY HENRY VOLBERDING  
 AMANDA IRENE WAGONER  
 THOMAS ALFRED WAYLAND  
 MARIAN A WEIGHTMAN  
 ROLLAND ARETUS WELCH  
 WALTER FRED WIESE  
 ALFRED ARTHUR WILLANDER  
 WALTER ANTHONY WOOLLEY

### THE COLLEGE OF DENTISTRY

#### The Degree of Doctor of Dental Surgery

MICHAEL BAUMSTEIN  
 ERNEST J. P. BROGMUS  
 LOUIS WILLIAM BORTZ  
 MILZOR WILLIAM DEIST  
 GEORGE W. DIERKS  
 GEORGE LEONARD FELCHER  
 JAMES EVERETT FONDA  
 RICHARD MAXWELL FULLERTON  
 DONALD MUIRHEAD CALLIE  
 SAMUEL HERMAN GOODFRIEND

HAROLD O. HANSEN  
 JOHN FRANCIS HOUGH  
 EDWARD JOHN KREJCI  
 CARL DAVID MARTIN  
 WILLIAM HUBERT SCHROEDER  
 DAVID A. STEINBERG  
 NATE SOMMERFIELD  
 WILLIAM ERNST WERNINGHAUS  
 LELAND J. WHITE

### THE SCHOOL OF PHARMACY

#### The Degree of Graduate in Pharmacy

*Conferred April 28, 1915, in Chicago*

RICHARD JOEL ANDERSON  
 SAMUEL LEON BAKER  
 MIKE ROBERT BIANCO  
 FREDERICK EVENSON BOEHM  
 MARSHALL THEODORE BREKKE  
 WALTER OTTO BUCKRUCKER  
 GUY BROOKS DAVIS  
 RAY ROBBINS DAVIS  
 GROVER OLIVER DRAIS  
 HARRY LEO EBERLY  
 ROY FRED FRASER  
 VICTOR LEO GEISPITZ  
 LOUIS ANDREW GORHAM  
 LOUIS LEO HAFFNER  
 RALPH HAWTHORNE  
 MICHAEL JACOBSON  
 GEORGE WILLIAM JINDRICH  
 ARCHIE KIRKWOOD JOHNSON  
 JOSEPH JOHN KAKACEK  
 RUDOLPH HENRY KREBS

THEODORE AUGUST JOSEPH LECKBAND  
 CHARLES JAMES LESKO  
 STEPHEN EDWARD MALKEWICZ  
 BATES A. MARRIOTT  
 PHILIP Aloysius MASTERSON  
 FRANKLIN CHRISTOPHER MUELLER  
 FRANK CHARLES NIEMAYER  
 OSWALD EDWARD FRED OBERMILLER  
 JOSEPH WINFRED RAYCRAFT  
 ROBERT CHARLES REED  
 HAROLD FRANKLIN SEEGER  
 BAYARD EDWIN SIMMONS  
 ERNEST LEE SLINKARD  
 CLIFFORD ROSS SPALDING  
 AUGUST FERDINAND STAHL, JR.,  
 STEWART STRAIN  
 ROY WILLIAM WOELFFER  
 LAWSON JACOB COOKE (Class of 1913)  
 FRED LEHMAN LEIB (Class of 1914)  
 LILLIAN VORSANGER (Class of 1912)

#### The Degree of Pharmaceutical Chemist

*Conferred June 11, 1915, in Chicago*

CARROLL EDWIN BUNDY  
 WILLIAM N. MILLER

JOSEPH PELC  
 EDWARD PALMER SCRUGGS

### THE GRADUATE SCHOOL

#### Degrees of Master of Arts and Master of Science

*Conferred June 16, 1915*

WILLIAM ALBERT ALERECHT, A.B., 1911,  
 B.S., 1914  
 Master of Science (Agronomy)  
 LOUIS ALLEN, A.B., 1913  
 Master of Arts (French)  
 ANDREW JOHN ALBERT ANDERSON, B.S.  
 (*Lewis Institute*) 1913  
 Master of Science (Civil Engineering)  
 ALBERT BABBITT, A.B.  
 (*Pennsylvania State College*) 1914  
 Master of Arts (Mathematics)

COURTLAND WALTER BADE, E.E.  
 (*Technicum Mittweida*) 1914  
 Master of Science (Electrical Engineering)  
 JULIA MINNETTA BARBER, A.B., 1913  
 Master of Arts (English)  
 CLARENCE BARBRE, B.S., 1914  
 Master of Science (Organic Analysis)  
 GEORGE WILSON BEATTIE, A.B.  
 (*Ripon College*) 1901; B.S., 1914  
 Master of Arts (Education)

- ALBERT JAMES BEATTY, A.B.  
(*Knox College*) 1900  
Master of Arts (Education)
- MARY LAVENIA BECK, B.S.  
(*Coe College*) 1908  
Master of Arts (English)
- JEFFERSON HALL BELT, B.S., 1912  
Master of Science (Electrical Engineering)
- ARTHUR NORTON BENNETT, B.S., 1907  
Master of Science (Chemistry)
- IRA JOHN BERKEMA, A.B., 1910  
Master of Arts (English)
- JOHN DAVID BOND, A.B.  
(*University of Tennessee*) 1909  
Master of Arts (Mathematics)
- JOSEPH MARVIN BRAHAM, B.S.  
(*University of Idaho*) 1914  
Master of Science (Physical Chemistry)
- SILAS ALONZO BRALEY, A.B.  
(*Morningside College*) 1913  
Master of Science (Industrial Chemistry)
- HENRY BUELLESFIELD, A.B., 1906  
Master of Arts (Education)
- ERNEST EDWARD CHARLTON, A.B.  
(*Grinnell College*) 1913  
Master of Science (Industrial Chemistry)
- HOMER ELDON CHENOWETH, A.B., 1913  
Master of Arts (Zoology)
- CLIFTON WIRT CLARK, A.B., 1913  
Master of Arts (Economic Geology)
- ARTHUR SAMUEL COLBY, B.S.  
(*New Hampshire College*) 1911  
Master of Science (Pomology)
- ESTHER MARGARET COLVIN, A.B.  
(*Albion College*) 1914  
Master of Arts (English)
- DELMAR GROSS COOKE, A.B., 1912  
Master of Arts (English)
- SYLVAN JAY CROOKER, B.S.  
(*Carleton College*) 1914  
Master of Science (Physics)
- FLOY FENTON CUTLER, A.B.  
(*Hedding College*) 1911  
Master of Arts (German)
- JUANITA ELIZABETH DARRAH, A.B., 1913  
Master of Science (Chemistry)
- RUTH KAY DAVIS, A.B.  
(*Greenville College*) 1911  
Master of Arts (Classics)
- HAROLD HOUGHTON DUNN, B.S., 1908  
Master of Science (Electrical Engineering)
- ELMER TRYON EBERSOL, A.B., 1902  
Master of Science (Agronomy)
- ERMA LYTHE ELLIOTT, A.B.  
(*Illinois Woman's College*) 1914  
Master of Arts (Mathematics)
- LEO WEISS ELSTON, A.B., 1913; B.S.  
(*Rutgers College*) 1914  
Master of Science (Horticulture)
- EMERY C FARVER, A.B.  
(*Otterbein University*) 1914  
Master of Arts (Mathematics)
- LESLIE WILLIAM FAULKNER, B.S., 1914  
Master of Science (Electrical Engineering)
- CHARLES STEVER FAZEL, A.B.  
(*Fairmount College*) 1914  
Master of Arts (Physics)
- JOHN J FERNHOHL, A.B.  
(*Indiana University*) 1914  
Master of Arts (Political Science)
- FERN LYNTON FISHER, A.B.  
(*James Millikin University*) 1914  
Master of Arts (German)
- AMELIA LOUISE GAY, A.B.  
Master of Arts (English)
- EUGENE MAXIMILLIAN KARL GEILING, A.B.  
(*University of the Cape of Good Hope*) 1911  
Master of Science (Chemistry)
- JAMES HENRY GREENE, B.S., 1908  
Master of Science (Animal Husbandry)
- CLARE ELMER GRIFFIN, A.B.  
(*Albion College*) 1914  
Master of Arts (Economics)
- WESLEY WALLACE HANFORD, B.S.  
(*Wesleyan University*) 1913  
Master of Science (Sanitary Chemistry)
- FRANK BLAIR HANSON, A.B.  
(*George Washington University*) 1913  
Master of Arts (Zoology)
- CHARLES LEROY HARLAN, A.B.  
(*Indiana University*) 1912  
Master of Arts (Education)
- GEROME READ HEAD, A.B.  
(*University of Wisconsin*) 1914  
Master of Arts (English)
- ARTHUR FLOYD HECK, A.B., 1913  
Master of Science (Agronomy)
- RUTH MARIE HEFFERNAN, A.B.  
(*Illinois Wesleyan University*) 1914  
Master of Arts (English)
- HARRY VIRL HEIMBURGER, A.B.  
(*De Pauw University*) 1911  
Master of Arts (Zoology)
- AXEL MAGNUS HJORT, A.B., 1914  
Master of Science (Organic Chemistry)
- RUTH ELIZABETH HODSDON, A.B.  
(*Oberlin College*) 1913  
Master of Arts (History)
- CHUAN-YING HSU, A.B.  
(*Nanking University*) 1905  
Master of Arts (Railway Administration)
- TSUNG HAN HSU, A.B., 1914  
Master of Arts (Geology)
- ARLANDUS LEON JERDAN, B.S.  
(*Alabama Polytechnic Institute*) 1913; B.S.  
(*University of Missouri*) 1914  
Master of Science (Animal Husbandry)
- MINNA ERNESTINE JEWELL, A.B.  
(*Colorado College*) 1914  
Master of Arts (Zoology)
- LUTHER EUGENE KENNEDY  
Master of Arts (Geology)
- JAMES KESSLER, A.B.  
(*Indiana University*) 1908  
Master of Arts (French)
- JAMES ERNEST KINDRED, A.B.  
(*Tufts College*) 1914  
Master of Arts (Zoology)
- HARRY CLEVELAND KREMERS, A.B.  
(*Hope College*) 1913  
Master of Science (Inorganic Chemistry)
- MA-LI LIANG-TZE LEE, A.B.  
(*Iowa Wesleyan College*) 1914  
Master of Arts (Education)
- HAROLD DEAN LESLIE, A.B.  
(*Ohio State University*) 1914  
Master of Arts (Economics)
- ELZY VERN MCCOLLOUGH, A.B.  
(*Tarkio College*) 1908  
Master of Arts (Economics)
- CARL STONE MCKELLOGG, A.B.  
(*Oberlin College*) 1914  
Master of Arts (Chemistry)
- HENRY THEODORE MCKINNEY, A.B., 1913  
Master of Arts (Education)
- WILLIAM ASBURY MANUEL, A.B.  
(*De Pauw University*) 1912  
Master of Science (Industrial Chemistry)
- ALICE EMMA MEIER, A.B.  
(*Northwestern College*) 1914  
Master of Arts (German)
- OLIVE FIEDELLE MILLER, A.B., 1914  
Master of Arts (French)
- GUNBAYU MIZOGUCHI, B.S., 1914  
Master of Science (Electrical Engineering)
- JULIAN MONTGOMERY, C.E.,  
(*Grayson College*) 1908  
B.S., (*University of Texas*) 1912  
Master of Science (Theoretical and Applied Mechanics)
- ODESSA MADGE MYERS, A.B., 1914  
Master of Arts (Classics)
- MERLE LOUIS NEBEL, B.S., 1913  
Master of Science (Mining Engineering)
- ALMA JESSIE NEILL, A.B., 1913  
Master of Arts (Physiology)

EDWARD FREDERICK NICKOLEY, A.B., 1898	Master of Arts (Economics)
EMMA MAY RHOADS NICKOLEY, A.B., 1899	Master of Arts (English)
YOUSABU OGAWA, B.S.	(University of California) 1914
	Master of Arts (Architecture)
RUTH ELIZABETH OKEY, B.S.	(Monmouth College) 1914
	Master of Science (Chemistry)
RAYMOND WILLIAM OWENS, B.S., 1914	Master of Science (Electrical Engineering)
OLIVE ALLEN PAYNE, A.B., 1914	Master of Arts (Education)
FRANKLIN CHARLES PALM, A.B.	(Oberlin College) 1914
	Master of Arts (History)
LESLIE ARTHUR PINKNEY, A.B.	(Wheaton College) 1910
	Master of Arts (Physics)
ROBERT BEDFORD POGUE, B.M.E.	(State University of Kentucky) 1913
	Master of Science (Railway Engineering)
WILLIAM SING-CHONG PUNG, B.S., 1914	Master of Science, (Railway Engineering)
CHARLES CHRISTIAN REES, A.B.	(Wabash College) 1913
	Master of Arts (Botany)
ERNEST ALEXANDER REID, B.S., 1914	Master of Science (Electrical Engineering)
FRANK ERWIN RICHART, B.S., 1914	Master of Science (Civil Engineering)
CLARENCE SAMUEL ROSS, A.B., 1913	Master of Arts (Geology)
JOHN CARL ROSS, A.B.	(South African College) 1911
	Master of Science (Chemistry)
FLOYD ELBA ROWLAND, B.S.	(Oregon Agricultural College) 1907
	A.B., 1914
	Master of Arts (Chemistry)
CHARLES ELLIOTTE SARGENT,	Master of Science (Mechanical Engineering)
EMIL FERDINAND SCHAAARMAN, A.B., 1914	Master of Arts (German)
FRED B. SEELY, B.S.	(Worcester Polytechnic Institute) 1907
	Master of Science (Theoretical and Applied Mechanics)
CHARLES TIMOTHY SENAY, B.S.	Master of Arts (Zoology)
JOHN LAWRENCE SIMONICH, B.S., 1914	Master of Science (Electrical Engineering)
GLENN SEYMOUR SKINNER, A.B.	(Kansas Manual Training School) 1913
	Master of Arts (Organic Chemistry)
LILLY STIEGELMEIER, B.S.	(Illinois Wesleyan University) 1912
	Master of Arts (History)
FREDERICK CURTIS SWANSON, A.B., 1914	Master of Arts (History)
WEN TSING TAO, A.B.	(Nanking University) 1914
	Master of Arts (Political Science)
Professional Degrees in Engineering	
JOHN DUDLEY BALL, B.S., 1907, Electrical Engineer	
RODNEY LINTON BELL, B.S., 1909, Civil Engineer	
MORTIMER BURNHAM CLEVELAND, B.S., 1908, Master of Architecture	
TOWNSEND FOSTER DODD, B.S., 1907, Electrical Engineer	
RAYMOND CLARK PIERCE, B.S., 1908, Civil Engineer	
PERCY McCLOURE RICHARDS, B.S., 1909, Electrical Engineer	
CHARLES ELLIOT SARGENT, B.S., 1886, Mechanical Engineer	
SEYMOUR STANDISH, B.S., 1910, Civil Engineer	
Degree of Doctor of Philosophy	
DEMETRIUS ION ANDRONESCU, Diploma of Capacity in Agronomy ( <i>Roumanian College of Agriculture</i> ) 1906; M.S., 1914 (Agronomy)	
<i>Thesis:</i> The Physiology of the Pollen of Zea Mays with Special Regard to Vitality	
ALBERT JOHN BECKER, B.S., M.E. ( <i>University of Michigan</i> ) 1903, 1907	
<i>Thesis:</i> The Strength and Stiffness of Steel under Bi-axial Loading	

- HENRY ALFRED BURD, B.S. (*Illinois Wesleyan University*) 1910; A.M., 1911 (English)  
*Thesis:* Joseph Ritson: A Critical Biography
- WILLIAM LEONIDAS BURLISON, B.S. (*Oklahoma Agricultural and Mechanical College*) 1905;  
 M.S., 1908 (Agronomy)  
*Thesis:* Availability of Mineral Phosphates for Plant Nutrition
- HARRY PEACH CORSON, B.S. (*New Hampshire College*) 1910; M.S., 1912 (Chemistry)  
*Thesis:* Manganese in Water Supplies
- OSCAR EDWARD HARDER, A.B., A.M., (*University of Oklahoma*) 1910, 1911 (Industrial Chemistry)  
*Thesis:* Alloys of Chromium, Copper, and Nickel
- CHARLES ELMER HOLLEY, A.B., A.M., 1912, 1913 (Education)  
*Thesis:* The Relationship between Persistence in School and Home Conditions
- JOSEPH WHITNEY HOWARD, A.B. (*Shurtleff College*) 1912; A.M., 1913 (Chemistry)  
*Thesis:* The Rearrangement of Alkyl Anilines
- LLOYD THEODORE JONES, A.B., A.M. (*Lake Forest College*) 1909, 1910; M.S., 1913 (Physics)  
*Thesis:* An Experimental Verification of the Law of Variation of Mass with Velocity  
 for Cathode Rays
- OLIVER KAMM, B.S., M.S., 1911, 1913 (Chemistry)  
*Thesis:* The Structure of the Dihydro —B— Napthoic Acids and the Correlation of  
 Ionization and Structure in Unsaturated Acids
- WALLACE MACFARLANE, B.S. (*University of Utah*) 1910; M.S., 1913 (Agronomy)  
*Thesis:* The Influence of Calcium and Magnesium on Plant Growth
- HAROLD HANSON MITCHELL, A.B., M.S., 1909, 1913 (Chemistry)  
*Thesis:* Feeding Experiments on the Substitution of Proteins by Definite Mixtures of  
 Isolated Amino Acids
- EDNA MOSHER, B.S. (*Cornell University*) 1908; M.S., 1913 (Entomology)  
*Thesis:* A Classification of the Lepidoptera Based on Characters of the Pupa
- FRED WEAVER MUNCIE, A.B. (*Wabash College*) 1910; M.S., 1913 (Organic Chemistry)  
*Thesis:* The Effect of Large Applications of Commercial Fertilizers upon Carnations
- GEORGE LEO PELTIER, A.B. (*University of Wisconsin*) 1910; A.M. (*Washington University*)  
 1912 (Botany)  
*Thesis:* Parasitic Rhizoctonias in America
- HAROLD ORDWAY RUGG, B.S., (*Dartmouth College*) 1908; C.E. (*Thayer School, Dartmouth*)  
 1909 (Education)  
*Thesis:* Descriptive Geometry and Mental Discipline
- GEORGE RUTLEDGE, A.B., A.M., 1910, 1913 (Mathematics)  
*Thesis:* The Number of Abelian Subgroups of Groups whose Orders are the Powers  
 of Primes
- CHARLES LESLIE STEWART, A.B. (*Illinois Wesleyan University*) 1911; A.M., 1912 (Economics)  
*Thesis:* Land Tenure in the United States with Special Reference to Illinois
- MINNIE ELIZABETH WATSON, A.B. (*Olivet College*) 1909; M.S., 1913 (Zoology)  
*Thesis:* Studies on Eugregarines Including Descriptions of Seventeen New Species and  
 a Synopsis of the Eugregarine Records from the Myriapoda, Cleopatra, and  
 Orthoptera of the World
- MORRIS MILLER WELLS, B.S. (*University of Chicago*) 1912 (Zoology)  
*Thesis:* The Relation of Fishes to Ions in their Natural Environment
- PHILIP QUINCY WRIGHT, A.B. (*Lombard College*) 1912; A.M. 1913 (Political Science)  
*Thesis:* The Means by which the Obligations of International Law are Enforced by  
 the Law of the United States
- FRANK ARCHIBALD WYATT, B.S. (*Agricultural College of Utah*) 1910; M.S., 1913 (Agronomy)  
*Thesis:* The Influence of Calcium and Magnesium Compounds on Plant Growth
- LEWIS EMANUEL YOUNG, B.S. (*Pennsylvania State College*) 1901; E.M. (*Iowa State College*)  
 1904 (Economics)  
*Thesis:* American Experience in Taxing Mines and Mineral Lands

# FELLOWS AND SCHOLARS IN THE GRADUATE SCHOOL

1915-16

WILLIAM ALBERT ALBRECHT, Scholar in Agronomy (*Nominee of the College of Agriculture*)  
OTHO WILLIAM ALLEN, Scholar in Romance Languages (*Nominee of the College of Liberal Arts and Sciences*)

HARRY AMSTERDAM, Scholar in Philosophy (*Nominee of Lake Forest College*)

HARRY ARMSTRONG, Scholar in Philosophy

A J ALBERT ANDERSON, Fellow in Theoretical and Applied Mechanics

THEODORE ROLLY BALL, Fellow in Chemistry

HARRY T BOOTH, Scholar in Physics

ST. ELMO BRADY, Fellow in Chemistry

LAURENCE VREELAND BURTON, Traveling Fellow in Bacteriology

EDWIN M A CHANDLER, Fellow in Chemistry

FRED EMERSON CLARK, Fellow in Economics

HELEN CLARK, Fellow in Psychology

DELMAR COOKE, Fellow in English

ARTHUR REUBEN COOPER, Fellow in Zoology

SYLVAN JAY CROOKER, Fellow in Physics

WILLIAM HENRY CULLUM, Scholar in Mathematics

LEVETTE JAY DAVIDSON, Scholar in English (*Nominee of Eureka College*)

NIELS HENRIKSEN DEBEL, Fellow in Political Science

LILLIAN DORA DOLE, Scholar in Zoology

JASPER OWEN DRAFFIN, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)

EDGAR WALLACE ENGLE, Fellow in Chemistry

HARRY RHINELANDT FRITZ, Research Fellow in Electrical Engineering (Engineering Experiment Station)

PHILIP GARMAN, Fellow in Entomology

CLARE ELMER GRIFFIN, Fellow in Economics

FREDERICK HOWLAND GUILD, Fellow in Political Science

OLIVE HARRIS, Scholar in German (*Nominee of Heding College*)

CLARENCE HEBBERT, Fellow in Mathematics

RUTH HIGLEY, Fellow in Zoology

JACOB ARNOLD HOFFO, Fellow in History

TEMPLE HOLLICROFT, Fellow in Mathematics

WALTER WILSON JENNINGS, Scholar in History

MINNA ERNESTINE JEWELL, Fellow in Zoology

JOSEPH HENRY JOHNSTON, Fellow in Education

WILLIAM GARFIELD KAMMLADE, Scholar in Animal Husbandry

WALTER ARTHUR GATWARD, Research Fellow in Electrical Engineering (Engineering Experiment Station)

MORRIS JOHNSON KERNALL, Fellow in Zoology

J LYONEL KING, Scholar in Entomology

FRANK ALLEN KIRKPATRICK, Research Fellow in Ceramics (Engineering Experiment Station)

ERNEST MICHAEL RUDOLPH LAMKEY, Fellow in Botany

LOUIS LARSON, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)

LESTER CLYDE LICHTY, Research Fellow in Mechanical Engineering (Engineering Experiment Station)

RALPH HARLAN LINKINS, Fellow in Zoology

WILLIAM PENN LUKENS, Research Fellow in Mechanical Engineering (Engineering Experiment Station)

KATHRYN MADDOCK, Scholar in Economics (*Nominee of Rockford College*)

CARL SHIPE MARVEL, Scholar in Chemistry (*Nominee of Illinois Wesleyan University*)

EFFIE MARGUERITE MORGAN, Scholar in English (*Nominee of James Millikin University*)

FORREST HAMILTON MURRAY, Scholar in Mathematics

LOUIS AUBREY MYLIUS, Research Fellow in Mining Engineering (Engineering Experiment Station)

MERLE LOUIS NEBEL, Fellow in Geology

JULIUS EDWARD NORDBY, Scholar in Animal Husbandry

ETHEL LOUISE O'CONNOR, Scholar in German

MARGARET OLNSTED, Scholar in Classics (*Nominee of Augustana College*)

BENITO RENE ORDONEZ, Research Fellow in Railway Electrical Engineering (Engineering Experiment Station)

FRANKLIN CHARLES PALM, Fellow in History

EDWIN KENNEY PARKER, Scholar in Entomology

NEWTON LYMAN PARTRIDGE, Fellow in Horticulture

DANIEL FREDERICK PASMORE, Fellow in German

ALVAH PETERSON, Fellow in Entomology

LEWIS BRADFORD RIPLEY, Scholar in Entomology

FREDERICK ARTHUR RUSSELL, Fellow in Economics

ROBERT ROYAL RUSSELL, Fellow in History  
ETHEL ERNESTINE SABIN, Fellow in Philosophy  
HELEN KATHERINE SCHOEPPERLE, Fellow in History  
CLARENCE SCHOLL, Fellow in Chemistry  
HARRIET SCOFIELD, Scholar in Mathematics (*Nominee of Carthage College*)  
ELEANOR FRANCES SEILER, Scholar in Physics  
EDITH IRENE SENDENBURGH, Scholar in English  
ERNEST JAMES SMITH, Scholar in Political Science  
MERLIN GRANT SMITH, Scholar in Mathematics (*Nominee of Greenville College*)  
GEORGE WASHINGTON SPINDLER, Teaching Fellow in Germanic Languages  
WAYNE EDSON STEVENS, Fellow in History  
CHARLES JACOB STOWELL, Fellow in Economics  
HORACE WESLEY STUNKARD, Fellow in Zoology  
MERLE ARTHUR SWENEY, Scholar in English  
STEFAN FUJITO TANABE, Research Fellow in Physics (Engineering Experiment Station)  
RICHARD LAURENCE TEMPLIN, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)  
MARY LOUELLA TROWBRIDGE, Scholar in Classics  
BERNICE WAIT, Scholar in Household Science  
CAMILLO WEISS, Research Fellow in Civil Engineering (Engineering Experiment Station)  
HAROLD MALCOLM WESTERGAARD, Fellow in Theoretical and Applied Mechanics  
EVERETT GILLHAM YOUNG, Research Fellow in Railway Engineering (Engineering Experiment Station)

The Francis John Plym Fellowship in Architecture

ALEXANDER RUDOLPH BRANDNER, 1913

# UNIVERSITY HONORS

Awarded by the Faculty of the University

1914-15

## HONORS AT COMMENCEMENT

(June, 1915)

### College of Liberal Arts and Sciences

#### THE DEGREE OF A.B. WITH HONORS

MILDRED LEAN COBURN, in German  
ELIZABETH GENEVIEVE FULLER, in English  
ALTA GREEN, in English  
GERTRUDE HALUSKA, in History  
WALTER WILSON JENNINGS, in History  
HADDEN SPURGEON KIRK, in History  
RAY ORION WYLAND, in Psychology

#### FINAL HONORS

(Courses of the former College of Science)

MARY ELIZABETH COLLOM  
LILLIAN DORA DOLE  
CHARLES FRANCIS GEIGER  
VERA OPLE GOSSETT  
LOIS MYRTLE HARRIS  
FRANK A HOERNER

CARRIE LUCILE MCCOLLEY  
MARGARET MILDRED MEHLHOP  
FORREST HAMILTON MURRAY  
ROE NIVER  
EDITH ANNA SWANK  
RUTH ELIZABETH YOUNG

#### SPECIAL HONORS

AMELIA LUCINDA KELLOGG, in Botany  
EVERETT ROBERT BRUNSKILL, in Chemical Engineering  
CHARLES FRANCIS GEIGER, in Ceramic Engineering  
FRANK A HOERNER, in Psychology  
SIDNEY MARION HULL, in Chemistry  
SILAS CARL LINBARGER, in Ceramic Engineering  
EDWIN WHITAKER MATTOON, in Zoology  
FORREST HAMILTON MURRAY, in Mathematics

### College of Engineering

#### FINAL HONORS

HAROLD EMERY AUSTIN  
IRL REUBEN CLINE  
HENRY DUBIN  
ALDEN KNOWLTON FOGG  
FRANK ALFRED FORTY  
RALPH GREEN  
ARTHUR HAGENER  
ROY HARRISON HASLUND  
MAX HOLMBURGER, JR.  
EDWARD ALLEN JAMES

FREDERICK AUGUST KUHS MARK  
JOHN HAROLD MILLER  
PETER JACOB NILSEN  
FREDERICK WILLIAM PANHORST  
HARRY BARRETT ROGERS  
WALTER HENRY SIMON  
PERRY JEROME SWEENEY  
MILTON CORNELIUS TAYLOR  
GEORGE WILLIAM WATTS  
EDWARD ALLEN WILLIFORD

#### SPECIAL HONORS

ALDEN KNOWLTON FOGG  
RALPH GREEN  
EDWARD ALLEN JAMES  
PETER JACOB NILSEN

GEORGE WILLIAM WATTS  
EDWARD ALLEN WILLIFORD  
CLYDE CHARLES YOUNGLOVE

### College of Agriculture

#### FINAL HONORS

CHALMERS WOODRUFF CRAWFORD  
ETHEL MARY DOLE  
JULIAN LOUNSBURY FISH  
NOBLE PARKER HOLLISTER  
IZOPA LEE  
NATHAN MELTZ

HELEN SINCLAIR MORRISON  
MAYNARD ELMER SLATER  
VICTOR ELWIN SPENCER  
LAURENCE EMERSON THORNE  
CARLE CAPRON WALTER

**SPECIAL HONORS**

MAYNARD ELMER SLATER

**College of Law****FINAL HONORS**

WESLEY EBBETT CUMMINS

GLENN RATCLIFFE

**Library School****FINAL HONORS**

MABEL LOUISE CONAT

**School of Music****FINAL HONORS**

HELEN LOUISE MADDEN

**PRELIMINARY HONORS**

(October, 1915)

**College of Liberal Arts and Sciences**

BEULAH IRENE AGNEW  
 JOHN KENNETH BARBER  
 HELEN LOUISE BUCHEN  
 JULIUS COHEN  
 WALTER STEPHEN FRAZIER  
 ERNA CLAIRE GOLDSCHMIDT  
 ELIZABETH PURSEL HACKLEY  
 RICHARD GEORGE HEESCHEN  
 HELEN MARIE KIRKPATRICK  
 ADOLPH WALTER LANDSTROM

BESSIE LOWRY  
 MAUDE IRENE MARKS  
 CORA LEONE MERRITT  
 THADDEUS LEMERT MONTGOMERY  
 LOIS PHILBRICK  
 MARY LUCILE SHAY  
 MILTON GANS SILVER  
 MARION VIRGINIA WEISS  
 WALTER VALENTINE WIRTH

**College of Commerce and Business Administration**

HAZEL EVELYN BRUNSON  
 JAMES FORSYTHE McCLOUD

SCOTT McNULTA  
 HELEN JACKSON WILLIAMS

**College of Engineering**

CHARLES WESLEY ANDERSON  
 DAN BABCOCK  
 PAUL BECKER  
 TZE LI CHANG  
 CHARLES M. CLARK  
 GEORGE OTTO CONSOER  
 CHARLES McKinLEY ETTINGER  
 HAROLD NORTON FELTON  
 THOMAS FRASER  
 HAROLD GREENHILL  
 CARL ALBERT GUSTAFSON  
 WALTER AUGUST HIMMELREICHER  
 HIROSHI HORIMURA  
 ALFRED CHANG LEE  
 JOHN TAYLOR LEWIS

ROY MOORE LUEDER  
 WILLIAM HERMAN MINKEMA  
 HERBERT EDWARD MUELLEK  
 DWIGHT REED NORRIS  
 PERCY WRIGHT OTT  
 RALPH MARION OVERTON  
 GLEN EDWARD POTTER  
 RUDOLPH RAHN  
 PAUL ALBERT RAIBOURN  
 JOHN HUBERT RAMSER  
 MAURICE JOHNSON REED  
 HARVEY RUSSELL RICHARDSON  
 HUMPHREYS SIEGMUND  
 LUTHER FRANKLIN SIMPSON  
 THOMAS ELMER STOCKDALE

**College of Agriculture**

SARAH AGG  
 JOHN HAROLD ARMSTRONG  
 MATILDA MAY BAECHLER  
 HELEN MARIE BARROWS  
 HARRY LEONARD CARLSON  
 EARL THOMAS DAVIS  
 HERALD BRATT FITES  
 ANTHONY READY GOULD  
 ALBERT WILLIAM HARZ  
 LAURA CLARE HOLMES  
 FRANK WILLIAM JONES  
 CECIL CLYDE MILLESON

LEONARD OSGOOD MITCHELL  
 REUBEN WALTER PETERSON  
 BENJAMIN HARRISON QUESTEL  
 WILLARD PARMENTER RANNEY  
 WARREN MCCLELLAN RICHMOND  
 FERNAND JOHN SCHLEIFER  
 AMELIA MARIE SLOAN  
 AILSIE STEVENSON  
 CLEMENT EDDY TROUT  
 MANIERRE BARLOW WARE  
 DANIEL EDWIN WARREN  
 MARION KINGSLEY WHITE

**College of Law**

ESSEL RAY DILLAVOU  
 ALBERT BERNARD HOLECEK

CRAIG VAN METER  
 BENJAMIN WHAM

School of Music

LAURA DOLE

PRIZES

B'nai B'rith Prize

(*First Prize for Upperclassmen*)

ISAAC SIEGEL

(*Freshman Prize*)

ANITA LIBMAN

The Bryan Prize Essay

DENNA FRANK FLEMING

The Phi Beta Kappa Prize

WALTER WILSON JENNINGS

Llewellyn Prize in Architectural Engineering

STEWART TRACY SMITH

American Institute of Architects Medal

BERNARD ERNST GEORGE DIRKS

Scarab Medal in Architecture

GLEN HERBERT THOMAS

# MILITARY HONORS

## COMMISSIONS AS BREVET CAPTAINS, ILLINOIS NATIONAL GUARD, ISSUED BY THE GOVERNOR IN 1915

JOSEPH N GREENE  
AUGUSTUS H GRUNEWALD  
WALTER C ARMSTRONG  
EDWARD C ELLES  
ERNEST H POOL  
CLIFFORD H HOOD  
GERALD D STOPP  
BENJAMIN H DECKER  
WESLEY K NORRIS  
LAURENCE E THORNE  
RALPH L HERMANN  
GEORGE H BUTLER  
DONALD C SCHEELE  
GEORGE D GRISWOLD  
ROE NIVER  
LOREN C BOW

MAURICE E HOIT  
IRL R CLINE  
CLARENCE A NEBEL  
LLOYD D KNAPP  
AUGUST M BARREAU  
LAWRENCE H DUNHAM  
EUGENE R P RALL  
ROY R ZIPPENDT  
ARTHUR H HUISKEN  
MAYNARD E SLATER  
JOHN H MILLER  
EDWARD A JAMES  
CLOVIS W LINCOLN  
G W HAAN  
J C HOSTETLER

## REPORTED TO THE ADJUTANT GENERAL, UNITED STATES ARMY, AS DISTINGUISHED CADETS

JOSEPH N GREENE  
AUGUSTUS H GRUNEWALD  
WALTER C ARMSTRONG  
EDWARD C ELLES  
JOSEPH C HOSTETLER  
ERNEST H POOL  
CLIFFORD H HOOD  
GERALD D STOPP  
BENJAMIN H DECKER  
WESLEY K NORRIS  
JAMES E FETHERSTON

LAURENCE E THORNE  
RALPH L HERMAN  
GEORGE H BUTLER  
DONALD C SCHEELE  
GEORGE D GRISWOLD  
ROE NIVER  
LOREN C BOW  
MAURICE E HOIT  
CHARLES L RITTS  
IRL R CLINE  
CLARENCE A NEBEL

## ROSTER OF OFFICERS AND NON-COMMISSIONED OFFICERS OF THE UNIVERSITY CORPS OF CADETS, 1914-15

### BRIGADE

COLONEL E SHELBY, Commanding Brigade  
MAJOR R R THOMAS, Brigade Adjutant

### FIRST REGIMENT

Lieutenant-Colonel .....	F. M. Van Natter
Captain and Adjutant .....	C. N. Owen
Captain and Quartermaster .....	O. C. K. Hutchinson
Captain and Commissary .....	R. L. Schiesewohl
Regimental Sergeant Major .....	C. Fairman
Regimental Quartermaster Sergeant .....	C. J. Boleyn
Regimental Commissary Sergeant .....	R. A. Bryant
Regimental Color Sergeant .....	J. L. Crawford

### First Battalion

Major .....	O. J. Troster
1st Lieutenant and Adjutant .....	J. T. Lewis
2nd Lieutenant and Quartermaster .....	T. S. Hamilton
Sergeant Major .....	W. H. Browne

Company A  
Captain E. C. O. Beatty  
1st Lieutenant, W. F. Campbell  
2nd Lieutenant, L. W. Chalcraft  
1st Sergeant, O. G. Brain  
Q. M. Sergeant, J. H. Bell

Company B  
Captain K. Bell  
1st Lieutenant, W. O. Nelson  
2nd Lieutenant, D. Babcock  
1st Sergeant, F. D. Ball  
Q. M. Sergeant, P. Berryman

	<i>Company A</i>	<i>Company B</i>
Sergeants,	W. J. Alcock G. H. Deuchler M. B. Harland K. C. Kruegar A. Parr R. Sladek S. E. Walworth	Sergeants, P. J. Anderson L. F. Draper G. Hartwell J. J. Lacy A. R. Pastel F. H. Smith D. Watford N. C. Ranney
	<i>Company C</i>	<i>Company D</i>
Captain,	A. G. Steinmeyer	R. P. Brown
1st Lieutenant,	L. H. Gift	A. M. Adams
2nd Lieutenant,	I. B. Countryman	R. L. Swindler
1st Sergeant,	C. C. Brooks	H. R. Ide
Q. M. Sergeant,	R. H. Briggs	Q. M. Sergeant, L. K. Cecil
Sergeants,	A. J. Eichberg A. D. Ladehoff R. C. Patton C. E. Snell R. Watson I. H. Richman R. E. Andrews	Sergeants, J. H. Euston D. W. Hickey R. S. Mitchell R. M. Paul F. Somers H. H. White C. V. Sacton J. P. Smith H. O. Swindler

**Second Battalion**

Major.....	R. S. Mason
1st Lieutenant and Adjutant.....	R. H. Lawrence
2nd Lieutenant and Quartermaster .....	R. E. Netcott
Sergeant Major .....	R. A. Burton

	<i>Company E</i>	<i>Company F</i>
Captain,	L. S. Morrill	D. W. Crane
1st Lieutenant,	H. O. Siegmund	C. R. Gross
2nd Lieutenant,	G. H. Thomas	S. B. Trelease
1st Sergeant,	W. E. Cleveland	F. Kalthoff
Q. M. Sergeant,	H. T. Clapp	Q. M. Sergeant, J. M. Cost
Sergeants,	D. A. Armstrong F. L. Fields D. Horwich C. Lively A. R. Moore F. H. Pearson L. Williams R. Stevens	Sergeants, H. M. Armstrong C. J. Fisher R. F. Howe L. Lohman W. H. Moore C. F. Spangler W. M. Willitts E. E. Lehman

	<i>Company G</i>	<i>Company H</i>
Captain,	C. J. North	J. H. Gage
1st Lieutenant,	A. R. Keagy	J. E. Ott
2nd Lieutenant,	R. J. Craigmire	C. J. Gruhl
1st Sergeant,	G. A. Sowers	1st Sergeant, D. R. Gooch
Q. M. Sergeant,	E. W. Bailey	Q. M. Sergeant, R. Fréark
Sergeants,	C. V. Fisher H. A. Huisken H. Love L. A. Moore J. Phillips L. A. Wilson	Sergeants, I. C. Gill H. E. Barber F. H. Fisher P. Lundgren L. Phyllis G. P. Wiñn J. G. Clark

**Third Battalion**

Major.....	Geo. Curtiss
1st Lieutenant and Adjutant.....	C. Gross
2nd Lieutenant and Quartermaster .....	I. L. Lummis
Sergeant Major .....	L. S. Foote

	<i>Company I</i>	<i>Company K</i>
Captain,	E. Pihlgard	H. P. Grison
1st Lieutenant,	J. H. Powers	1st Lieutenant, L. F. Simpson
2nd Lieutenant,	C. W. Borton	2nd Lieutenant, M. R. Finley
1st Sergeant,	A. Lee	1st Sergeant, F. N. Vaughn
Q. M. Sergeant,	W. F. Coolidge	Q. M. Sergeant, R. Chamberlain
Sergeants,	O. C. Beatty R. N. Foster A. H. Ingwers E. Morsch B. M. Lyons A. W. Pickett H. G. Strathern L. M. Winters I. A. Denison	Sergeants, R. E. Foulke E. T. Janssen D. I. Lyons G. W. Muñns J. K. Stroig H. H. Worner

	<i>Company L</i>
Captain,	M. C. Johnson
1st Lieutenant,	E. S. Axline
2nd Lieutenant,	F. H. Geiler
1st Sergeant,	J. M. Gray
O. M. Sergeant,	D. W. Griffiths
Sergeants,	L. T. Jenner
	E. McEvers
	R. B. Murphy
	N. Taylor
	A. Wuerker
	A. B. Robertson

	<i>Company M</i>
Captain,	D. F. Heath
1st Lieutenant,	R. H. Engle
2nd Lieutenant,	E. H. Gay
1st Sergeant,	R. B. Coolidge
O. M. Sergeant,	J. C. Larson
Sergeants,	R. Bolling
	T. T. Frison
	E. R. McKeever
	S. E. Murray
	G. Ranney
	W. Thielman
	M. Yockey
	W. P. Stall

## SECOND REGIMENT

Lieutenant Colonel .....	L. E. Lamkins
Captain and Adjutant .....	W. H. Kasten
Captain and Quartermaster .....	B. P. Reinsch
Captain and Commissary .....	E. C. Swartwout
Sergeant Major .....	M. M. Parmely
Regimental Quartermaster Sergeant .....	L. Borucki
Regimental Commissary Sergeant .....	J. G. Threlkeld
Regimental Color Sergeant .....	J. L. Devlin
Regimental Color Sergeant .....	P. M. Rhue

### First Battalion

Major.....	R. Steinmeyer
1st Lieutenant and Adjutant.....	T. T. McEvoy
2nd Lieutenant and Quartermaster .....	C. W. Smith
Sergeant Major .....	C. R. Anderson

	<i>Company A</i>
Captain,	W. W. Shelden
1st Lieutenant,	R. L. McKown
2nd Lieutenant,	C. R. Gideon
1st Sergeant,	I. W. Turnquist
O. M. Sergeant,	J. B. Johnson
Sergeants,	W. H. Bosworth
	McK. Gardner
	R. H. Taylor
	D. McNish
	J. H. Ainsworth
	B. A. Stiritz
	B. C. Schweitzer

	<i>Company B</i>
Captain,	L. R. Lumley
1st Lieutenant,	J. R. Lindsey
2nd Lieutenant,	G. C. Smith
1st Sergeant,	W. Van Cleave
O. M. Sergeant,	J. S. McCarroll
Sergeants,	E. L. Nelson
	V. A. Kerr
	H. E. Musch
	H. Reichelderfer
	R. Born
	B. Bleuer
	L. B. Penhallow

	<i>Company C</i>
Captain,	W. H. Hough
1st Lieutenant,	H. R. Ferguson
2nd Lieutenant,	J. N. Johnson
1st Sergeant,	M. H. Peterson
O. M. Sergeant,	H. P. Owen
Sergeants,	W. B. Hostetler
	F. M. Keyes
	R. H. Mallory
	G. W. Nachtrieb
	M. C. Rhodes
	P. Tracy
	A. G. Butler
	E. Carrier

	<i>Company D</i>
Captain,	R. W. Millar
1st Lieutenant,	H. W. Moor
2nd Lieutenant,	C. E. Trout
1st Sergeant,	H. T. Miller
O. M. Sergeant,	H. Vial
Sergeants,	C. M. Campbell
	E. R. Goodman
	J. C. Neely
	L. E. Trickle
	L. Corrie
	J. H. Connor

Major.....	D. E. Miller
1st Lieutenant and Adjutant.....	M. B. Ware
2nd Lieutenant and Quartermaster .....	C. S. Palmer
Sergeant Major .....	R. W. Hummeland

	<i>Company E</i>
Captain,	C. G. Hadden
1st Lieutenant,	H. C. Gesselbracht
2nd Lieutenant,	H. G. Overend
1st Sergeant,	L. E. Yeager
O. M. Sergeant,	M. C. Troster
Sergeants,	M. H. Campbell
	R. C. Gore
	A. G. Kleinbeck
	T. H. Marshall
	P. W. Rush
	W. O. Trowbridge
	H. Diesurud
	G. E. Dickson

	<i>Company F</i>
Captain,	W. P. Beaubien
1st Lieutenant,	L. H. Davis
2nd Lieutenant,	A. C. Ames
1st Sergeant,	I. Hultman
O. M. Sergeant,	H. Tuckey
Sergeants,	L. Chandler
	J. W. Greene
	A. L. Kline
	E. A. Martell
	R. C. Newman
	A. E. Schiffelin
	H. E. Turley
	G. Dusenbury

<i>Company G</i>	
Captain,	R. D. Barnes
1st Lieutenant,	C. C. Citizen
2nd Lieutenant,	C. A. Britt
1st Sergeant,	E. M. Pickett
Q. M. Sergeant,	E. S. Moberly
Sergeants,	G. P. Christ
	E. A. Gripp
	W. L. Klink
	A. S. Van Deusen
	H. A. Ross
	O. Gehlback

<i>Company H</i>	
Captain,	L. W. Reese
1st Lieutenant,	G. L. Smith
2nd Lieutenant,	C. A. Drake
1st Sergeant,	D. R. E. Brown
Q. M. Sergeant,	F. H. Miller
Sergeants,	A. Clamitz
	J. F. Guynn
	B. T. Klotsche
	C. B. Marx
	B. J. O'Hara
	L. H. Schreiber
	R. Sperry
	R. Gérling

### Third Battalion

Major.....	C. W. McCumber
1st Lieutenant and Adjutant .....	M. C. Hughes
2nd Lieutenant and Quartermaster .....	F. W. Patton
Sergeant Major .....	O. Haas

<i>Company I</i>	
Captain,	H. W. MacKechnie
1st Lieutenant,	H. L. Husson
2nd Lieutenant,	L. W. Hines
1st Sergeant,	H. J. Bluhm
Q. M. Sergeant,	H. S. Olesen
Sergeants,	O. M. Clemm
	J. H. Hackley
	E. Kober
	H. E. Matson
	L. J. Selzer
	G. L. Townsan
	V. Griffith

<i>Company L</i>	
Captain,	J. G. Eppinger
1st Lieutenant,	P. B. Calhoun
2nd Lieutenant,	G. C. Darrell
1st Sergeant,	E. R. Brigham
Q. M. Sergeant,	Chas. G. Howard
Sergeants,	P. V. Cottingham
	W. W. Hancock
	C. A. Wagner
	G. C. Blohm
	E. R. Moberg
	J. W. Percival

<i>Battery</i>	
Captain,	S. N. Vibelius
1st Lieutenant,	L. D. Davis
2nd Lieutenant,	M. D. Roberts
1st Sergeant,	C. C. Larson
Sergeants,	W. F. Thies
	C. W. Nesbitt

<i>Company K</i>	
Captain,	A. G. Stone
1st Lieutenant,	Donald Swain
2nd Lieutenant,	Carl G. Howard
1st Sergeant,	M. Cuskaden
Q. M. Sergeant,	L. Kayser
Sergeants,	H. T. Meek
	H. W. Ostrom
	H. L. Senseman
	W. Volk
	L. H. Best
	M. M. Hart

<i>Company M</i>	
Captain,	K. S. Stice
1st Lieutenant,	H. P. Thurlow
2nd Lieutenant,	D. D. Sharer
1st Sergeant,	A. J. Gideon
Q. M. Sergeant,	A. L. Bonner
Sergeants,	J. P. Dempsey
	C. M. Hansen
	W. E. Krieger
	A. R. Miller
	R. Sheaff
	P. Wallace
	J. C. Craft
	H. W. Sheets
	F. A. Peck

<i>Signal Corps</i>	
Captain,	H. A. Smith
1st Lieutenant,	J. W. Smith
1st Lieutenant,	B. W. Clarke
1st Lieutenant,	H. Schreiner
1st Sergeant,	H. Kirk
Sergeants,	W. B. Barber
	C. T. Jessen
	G. C. Mapes
	I. B. Olin
	C. M. Roberts
	D. Webb
Corporals,	P. A. Raibourn
	R. Brooks
	J. B. Felmy
	G. S. Thompson
	R. Eaton

<i>Engineer Corps</i>	
Captain,	C. G. Jennings
1st Lieutenant,	G. A. Geib
2nd Lieutenant,	K. B. Bush
1st Sergeant,	V. Peccia
Q. M. Sergeant,	A. C. Wilson
Sergeants,	E. R. Petzing
	K. A. Miller
	C. H. Clarahan

<i>Hospital Corps</i>	
Captain,	W. R. Fischer
1st Lieutenant,	J. F. Kohl
1st Sergeant,	C. L. Anderson
Sergeants,	H. E. Diller
	C. C. Irick
	H. Otto
	P. G. Kreider
	C. C. Maher
	L. C. Ray
	H. F. Heller

**ANNUAL COMPETITIVE DRILLS—1915**

Winner University Gold Medal ..... O. M. Sgt. W. F. Campbell  
 Winner Hazelton Gold Medal ..... Private O. G. Brain

**Infantry***University Bronze Medals*

(Sophomore Competitive Drill)

**Company A, 1st Battalion, University Regiment**

Captain,	L. H. Dunham	Privates,	E. H. Giertz
1st Lieutenant,	J. A. Chase		H. J. Goldberger
2nd Lieutenant,	W. P. Beaubien		H. K. Gronium
1st Sergeant,	L. H. Gift		G. L. Grieser
Q. M. Sergeant,	C. W. Borton		O. P. Gernand
Sergeants,	C. L. Albee R. Fischer A. F. Meyer E. C. Runneberg L. W. Wolman I. N. Johnson F. R. Cattell		L. B. Hardiman E. M. Hayes R. E. Hippel W. H. Kane J. Kinsey P. Knight J. G. Kriewitz E. Lerch
Corporals,	H. A. Branan E. E. Eleson R. G. Heeschen H. W. McCoy E. R. Stevenson R. H. Swindler		S. J. Linderoth M. G. McConnell W. A. MacNelly O. Madsen
Privates,	L. Adler C. G. Alwood C. O. Appelman C. R. Bear W. H. Becker E. S. Boerner C. W. Brown M. B. Canady J. H. Clark R. W. Cochran G. O. Consoer R. E. Copper H. R. Cox H. Darby C. Day G. H. Dungan D. Durfey G. H. Falder E. M. Frederick		H. W. Markwardt A. W. Meyer B. L. Mink E. L. Montgomery C. R. Morrison F. H. Pethybridge W. O. Petrys P. H. Potter W. P. Ranney J. C. Sharp T. M. Simpson C. H. Smart M. G. Stephenson C. C. Turner E. H. VanDyke G. G. Waddington F. A. Walker D. C. Welty W. G. Will J. W. Wright

*\*University Bronze Medals*

(Freshman Competitive Drills)

**Company C, 1st Battalion, Second Regiment**

Captain.	G. D. Griswold	Privates,	K. Braunsdorf
1st Lieutenant,	E. C. O. Beatty		O. W. Burgess
2nd Lieutenant,	J. G. Eppinger		F. M. Campbell
1st Sergeant,	D. T. Swain		H. Hovey
Q. M. Sergeant,	J. O. Schmitz		I. Hultman
Sergeants,	R. E. Dippell L. C. Heckler H. P. Thurlow H. B. Bramlet R. L. McKown C. B. Rowe I. W. Washburn D. C. Goudy H. J. Craigmire S. C. Hopkins		F. S. Jannatto L. Jarmulsky A. L. Kline P. L. Krael
Corporals,	F. Kalthoff G. Sowers H. Reichelderfer R. E. Winshenker		F. J. Lampert A. Livingston S. McCarron W. McGrath D. McNish
Lance Corporals,	O. W. Archer F. B. Barber O. C. Beatty P. Berryman L. W. Borah		R. Melin F. Mills E. R. Moburg H. H. Morris S. E. Murray H. Musch R. C. Newman J. B. Prince F. C. Redig A. Robertson
Privates,			

\*Sophomores, bronze medals. Freshmen, bronze pins.

A. Clametz  
 J. Cline  
 W. Corrie  
 J. A. Crismore  
 G. Deuchler  
 C. P. Dowell  
 C. Fisher  
 R. Gerling  
 H. Goodell  
 E. P. Guernsey  
 H. Haldeman

A. Schiffelin  
 H. M. Stensel  
 J. K. Strong  
 H. Tuckey  
 H. F. Vaughn  
 B. F. Vocks  
 S. C. Wilkins  
 F. VonAck  
 J. M. Williams  
 D. Wright

**Artillery***University Bronze Medals*

1st Lieutenant, S. N. Vibelius  
 Sergeant, L. L. Davis  
 Privates, W. A. Allison  
 G. W. Birchard  
 H. S. Arnold  
 C. P. Brown

Privates,

F. E. Cavette  
 K. B. Freeman  
 B. Griffith  
 P. E. Johnston  
 F. Schleifer  
 C. E. Wise

**Signal Company***University Bronze Medals*

*Flag Section*  
 Sergeant, F. A. Brooks  
 Corporal, R. L. Britt  
 Corporal, R. S. Pfeiffer  
 Privates, U. S. Dunn  
 H. W. Hager  
 D. A. Hills  
 H. W. Kamp  
 G. S. Thompson

*Key Section*  
 Sergeant, M. A. Gould  
 Private, A. T. Fishman  
  
*Heliograph Section*  
 Privates, A. S. Graven  
 R. G. Copenhaver  
  
*Wireless Section*  
 Sergeant, A. M. Tower  
 Privates, E. F. Engelland  
 R. K. Newton  
 H. C. Schreiner

**Rifle Competition***University Bronze Medals*

*FIRST TEAM*  
 Company B, 2nd Infantry—  
 Sergeant, C. A. Drake  
 Sergeant, A. A. Gilbert  
 Corporal, W. M. Keach  
 Privates, E. R. Brigham  
 W. H. Bosworth  
 C. S. Gill  
 P. M. Rhue  
 R. F. Sheaff  
 F. Somers  
 F. M. Usis,

*SECOND TEAM*  
 Company B, 1st Infantry—  
 Sergeant, D. A. Albrecht  
 1st Sergeant, W. O. Nelson  
 Corporal, L. C. Maxwell  
 Privates, J. L. Crawford  
 H. W. Day  
 F. A. Davis  
 I. A. Hirstein  
 L. B. Moon  
 R. A. Powers  
 W. Vande Mark

**Battalion Competitive**

Third Battalion, 1st Infantry—Major E. H. Pool, Commanding

**Artillery Competitive**

First Gun Detachment—Sergeant L. L. Davis

**Members Match**

University of Illinois Rifle Club, National Rifle Association—R. M. Kamm

# SUMMARY OF OFFICERS BY COLLEGES AND SCHOOLS

1915-1916

## OFFICERS OF INSTRUCTION

COLLEGES AND SCHOOLS	PROFESSORS		ASSOCIATE PROFESSORS		ASSISTANT PROFESSORS		ASSOCIATES	
	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.
Liberal Arts and Sciences..	45	..	7	..	21	..	21	1
Commerce and Business Ad- ministration .....	4	..	..	..	4	..	1	..
Engineering .....	21	..	3	..	18	..	19	..
Agriculture .....	13	1	2	..	17	1	24	4
Music .....	1	..	..	..	1	1	..	..
Law .....	6	..	..	..	1	..	..	..
Library .....	1	..	..	..	..	1	1	1
Military Science.....	2	..	..	..	..	..	..	..
Physical Training.....	1	1	..	..	..	..	3	..
<i>Totals at Urbana.....</i>	<i>94</i>	<i>2</i>	<i>12</i>	<i>..</i>	<i>62</i>	<i>3</i>	<i>69</i>	<i>6</i>
Medicine .....	24	..	7	1	17	1	8	..
Dentistry .....	9	..	..	..	3	..	..	..
Pharmacy .....	1	..	..	..	2	..	..	..
<i>Totals in Chicago.....</i>	<i>34</i>	<i>..</i>	<i>7</i>	<i>1</i>	<i>22</i>	<i>1</i>	<i>8</i>	<i>..</i>
<b>TOTALS IN UNIVERSITY...</b>	<b>128</b>	<b>2</b>	<b>19</b>	<b>1</b>	<b>84</b>	<b>4</b>	<b>77</b>	<b>6</b>

## OFFICERS OF ADMINISTRATION

General .....	..
Library Staff.....	..
<b>TOTAL, INSTRUCTIONAL AND ADMINISTRATIVE.....</b>	<b>..</b>
<i>Deduct duplicates .....</i>	<i>..</i>
<b>NET TOTAL IN UNIVERSITY.....</b>	<b>..</b>

**SUMMARY OF OFFICERS  
BY COLLEGES AND SCHOOLS**

1915-1916

SPECIAL LECTURERS		INSTRUCTORS		ASSISTANTS		GRADUATE ASSISTANTS		STUDENT ASSISTANTS		TOTALS		
Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.	Total
1	..	41	9	74	13	25	5	8	1	243	29	272
2	..	6	..	4	..	..	..	..	..	21	..	21
1	..	34	..	17	..	..	..	..	..	113	..	113
..	..	16	7	32	3	..	..	..	..	104	16	120
..	..	5	3	..	..	..	..	..	..	7	4	11
..	..	..	..	..	..	..	..	..	..	7	..	7
..	..	1	..	1	..	..	..	..	..	2	5	7
..	..	..	..	..	..	..	..	9	..	11	..	11
..	..	2	4	2	2	..	..	..	..	8	7	15
4	1	104	24	129	19	25	5	17	1	516	61	577
3	..	61	2	18	3	..	..	5	..	143	7	150
2	..	10	..	2	..	..	..	2	..	28	..	28
1	..	3	..	..	..	..	..	..	..	7	..	7
6	..	74	2	20	3	..	..	7	..	178	7	185
10	1	178	26	149	22	25	5	24	1	694	68	762
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52	3	55
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	42	48
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	752	113	865
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41	3	44
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	711	110	821

# SUMMARY OF STUDENTS

## 1915-1916

College and Course	Seniors			Juniors			Sophomores			
	Men	Wom.	Total	Men	Wom.	Total	Men	Wom.	Total	
<b>LIBERAL ARTS AND SCIENCES</b>										
General .....	69	82	151	66	86	152	107	103	210	
Medical Preparatory .....	2	...	2	11	1	12	29	2	31	
Household Science.....	40	40		...	48	48	...	54	54	
Chemistry .....	9	...	9	9	1	10	12	1	13	
Chemical Engineering.....	10	...	10	19	...	19	25	...	25	
<i>Totals</i> .....	<i>90</i>	<i>122</i>	<i>212</i>	<i>105</i>	<i>136</i>	<i>241</i>	<i>173</i>	<i>160</i>	<i>333</i>	
Commerce and Business Administration .....	62	1	63	86	3	89	133	6	139	
<b>ENGINEERING</b>										
Architecture .....	28	1	29	35	1	36	26	...	26	
Architectural Eng.....	37	...	37	44	...	44	42	...	42	
Ceramic Engineering.....	8	...	8	23	...	23	19	...	19	
Civil Engineering .....	33	...	33	46	...	46	47	...	47	
Electrical Engineering .....	37	...	37	62	...	62	62	...	62	
Mechanical Engineering .....	39	...	39	52	...	52	50	...	50	
Mining Engineering.....	2	...	2	10	...	10	6	...	6	
Mun. and San. Eng.....	5	...	5	9	...	9	4	...	4	
Railway Civil Eng.....	4	...	4	4	...	4	4	...	4	
Railway Electr. Eng.....	3	...	3	7	...	7	2	...	2	
Railway Mech. Eng.....	2	...	2	2	...	2	2	...	2	
<i>Totals</i> .....	<i>198</i>	<i>1</i>	<i>199</i>	<i>294</i>	<i>1</i>	<i>295</i>	<i>264</i>	...	<i>264</i>	
<b>AGRICULTURE</b>										
General .....	162	8	170	224	2	226	223	6	229	
Household Science.....	..	19	19	...	41	41	...	19	19	
<i>Totals</i> .....	<i>162</i>	<i>27</i>	<i>189</i>	<i>224</i>	<i>43</i>	<i>267</i>	<i>223</i>	<i>25</i>	<i>248</i>	
MUSIC .....	2	7	9	...	6	6	1	11	12	
<b>TOTALS UNDERGRADUATES AT URBANA</b> .....	<b>514</b>	<b>158</b>	<b>672</b>	<b>709</b>	<b>189</b>	<b>898</b>	<b>794</b>	<b>202</b>	<b>996</b>	
LAW .....				18	...	18	31	...	31	
LIBRARY SCHOOL .....							1	13	14	
<b>TOTALS, UNDERGRADUATES AND PROFESSIONAL SCHOOLS AT URBANA</b> .....										
GRADUATE SCHOOL .....										
<b>TOTALS AT URBANA, WINTER SESSION</b> .....										
SUMMER SESSION, 1915										
Undergraduates .....										
Graduate Students .....										
<i>Total, Summer Session</i> .....										
<b>TOTALS AT URBANA, TO FEBRUARY 23, 1916.</b> .....										
				<i>Fourth Year</i>		<i>Third Year</i>		<i>Second Year</i>		
MEDICINE (Chicago).....	103	7	110		45	3	48	18	2	20
DENTISTRY (Chicago).....					33	1	34	26	...	26
PHARMACY (Chicago)										
Ph.G. Curriculum .....								52	3	55
Ph.C. Curriculum .....								5	...	5
<i>Total Pharmacy</i> .....								57	3	60
<b>TOTAL IN CHICAGO</b> .....										
<b>TOTAL IN UNIVERSITY TO FEBRUARY 23, 1916</b> .....										
DUPLICATES TO BE DEDUCTED										
Summer Session Undergraduates returned for Winter Session .....										
Summer Session Graduate Students returned for Winter Session .....										
Other duplicate registrations .....										
<i>Total duplicates</i> .....										
<b>NET TOTAL, TO FEBRUARY 23, 1916.</b> .....										

# SUMMARY OF STUDENTS

## 1915-1916

Freshmen			Specials			Totals		
Men	Wom.	Total	Men	Wom.	Total	Men	Wom.	Total
267	239	506	9	6	15	518	516	1034
60	4	64	...	...	...	102	7	109
...	111	111	...	...	...	...	253	253
23	...	23	...	...	...	53	2	55
44	...	44	...	...	...	98	...	98
<b>393</b>	<b>354</b>	<b>747</b>	<b>9</b>	<b>6</b>	<b>15</b>	<b>771</b>	<b>778</b>	<b>1549</b>
275	11	286	3	1	4	559	22	581
65	1	66	...	1	1	154	4	158
54	...	54	...	...	...	177	...	177
19	...	19	...	...	...	69	...	69
66	...	66	1	...	1	193	...	193
106	...	106	...	...	...	267	...	267
108	...	108	...	...	...	249	...	249
12	...	12	...	...	...	30	...	30
7	...	7	...	...	...	25	...	25
7	...	7	...	...	...	19	...	19
5	...	5	...	...	...	17	...	17
5	...	5	...	...	...	11	...	11
<b>454</b>	<b>1</b>	<b>455</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1,211</b>	<b>4</b>	<b>1,215</b>
442	17	459	22	4	26	1073	37	1110
...	39	39	...	3	3	...	121	121
<b>442</b>	<b>56</b>	<b>498</b>	<b>22</b>	<b>7</b>	<b>29</b>	<b>1073</b>	<b>158</b>	<b>1231</b>
1	36	37	5	17	22	9	77	86
1567	458	2025	37	31	68	3623	1039	4662
38	...	38	1	...	1	88	...	88
3	26	29	...	...	...	4	39	43
...	...	...	...	...	...	<b>3715</b>	<b>1078</b>	<b>4793</b>
...	...	...	...	...	...	401	76	477
...	...	...	...	...	...	4116	1154	5270
...	...	...	...	...	...	560	358	918
...	...	...	...	...	...	87	23	110
...	...	...	...	...	...	647	381	1028
...	...	...	...	...	...	4763	1535	6298
<i>First Year</i>			<i>Specials</i>					
43	4	47	1	...	1	210	16	226
64	4	68	...	...	...	123	5	128
85	5	90	38	...	38	175	8	183
4	2	6	1	...	1	10	2	12
<b>89</b>	<b>7</b>	<b>96</b>	<b>39</b>	<b>...</b>	<b>39</b>	<b>185</b>	<b>10</b>	<b>195</b>
...	...	...	...	...	...	<b>518</b>	<b>31</b>	<b>549</b>
...	...	...	...	...	...	<b>5281</b>	<b>1566</b>	<b>6847</b>
...	...	...	...	...	...	244	100	344
...	...	...	...	...	...	46	7	53
...	...	...	...	...	...	18	5	23
...	...	...	...	...	...	308	112	420
...	...	...	...	...	...	4973	1454	6427

## SUMMARY OF DEGREES

*Degrees in the Graduate School*

A.M. ....	69
M.S. ....	48
C.E. ....	3
E.E. ....	3
M.E. ....	1
M.Arch. ....	1
Ph.D. ....	23
 Total.....	 148

*Baccalaureate Degrees*

A.B., College of Liberal Arts and Sciences.....	253
B.L., College of Liberal Arts and Sciences*.....	2
B.S., College of Liberal Arts and Sciences.....	35
B.S., College of Engineering.....	195
B.S., College of Agriculture.....	136
B.Mus., School of Music.....	10
 Total.....	 631

*Degrees in Law*

LL.B. ....	19
J.D. ....	2
 Total.....	 21

*Degrees in Library Science*

B.L.S. ....	14
 TOTAL, COLLEGES AND SCHOOLS IN URBANA.....	 814

*Degrees in Medicine*

B.S. ....	4
M.D. ....	102
 Total.....	 106

*Degrees in Dentistry*

D.D.S. ....	19
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*Degrees in Pharmacy*

Ph.G. ....	40
Ph.C. ....	4
 Total.....	 44

*TOTAL, DEPARTMENTS IN CHICAGO.....*

*169*

*TOTAL, ALL DEPARTMENTS.....*

*983*

\*Degrees conferred on former students; see page 534.

# INTERCOLLEGIATE DEBATERS

1914-1915

## In the I.M.I. Debating League

### *Against Minnesota*

EARL CRANSTON EWERT  
HERBERT CLARENCE HELM  
RALPH EBNER HIMSTEDT

### *Against Iowa*

FRANK CLIFTON SLATER  
VERNON THOMPSON STEVENS  
BENJAMIN WHAM

## In the Midwest Debating League

### *Against Wisconsin*

EDWARD BEAN HAYES  
GEORGE WASHINGTON BRISTOW  
RALPH EBNER HIMSTEDT

### *Against Michigan*

DONALD ASHWAY GROSSMAN  
HERBERT WILLIAM BYE  
FRANK BONNER LEONARD, JR.

## Representative in the Northern Oratorical League

RALPH EBNER HIMSTEDT

## Representative in the Illinois Peace Contest

GERALD DARFIELD STOPP

# DIRECTORY OF ALUMNI ASSOCIATIONS

## GENERAL ALUMNI ASSOCIATION

To foster a spirit of loyalty and fraternity among the graduates and former students of the University of Illinois and to effect united action in promoting the welfare of the University.  
President: W. A. Heath, '83, Live Stock Exchange National Bank, Chicago, Ill.  
Secretary-Treasurer: Franklin W. Scott, '01, 703 Michigan avenue, Urbana, Ill.

## DEPARTMENTAL ALUMNI ASSOCIATIONS

### The Alumni Association of the Library School

President: Adam Strohm, '00, Detroit Public Library, Detroit, Michigan  
Secretary-Treasurer: Jennie A. Craig, '06, 613 W. Springfield avenue, Champaign, Ill.

### The Alumni Association of the College of Medicine

President: Dr. F. D. Moore, '99, 30 North Michigan avenue, Chicago  
Secretary: Dr. C. H. Phifer, '02, 4500 Indiana avenue, Chicago

### The Alumni Association of the College of Dentistry

President: Dr. C. M. Loescher, '04.  
Secretary: Dr. Louis Miller, '06.

### The Alumni Association of the School of Pharmacy

President: George P. Mills, '84, Evanston, Ill.  
Secretary-Treasurer: A. H. Clark, 74 E. Twelfth street, Chicago

## LOCAL ALUMNI ASSOCIATIONS

### California

SAN FRANCISCO: The Golden Gate Alumni Association of the University of Illinois  
President: Stella Bennett, '03, 2530 Chilton Way, Berkeley  
Secretary-Treasurer: Ella Barber, '84, 2121 Shattuck avenue, Berkeley

SOUTHERN CALIFORNIA: The University of Illinois Alumni Association of Southern California  
President: Frank L. Drew, '04, 1154 N. Mentor avenue, Pasadena  
Secretary: Ernest Ingold, '09, 335 S. Hill street, Los Angeles

### Colorado

University of Illinois Club of Colorado

President: Frank L. Birney, '81, 309 Ideal block, Denver  
Secretary-Treasurer: Dr. T. J. Fenton, '06, Denver

### District of Columbia

WASHINGTON: University of Illinois Club of Washington

Secretary: W. O. Gordon, '11, Bureau of Animal Husbandry, Dept. of Agriculture, Washington, D. C.

### Idaho

The Illini Club of Idaho

President: C. F. Pike  
Secretary: F. N. Ropp, '08, Federal bldg., Boise

### Illinois

AURORA: Aurora Illini Club

President: M. A. Kendall, '07, 715 Garfield blvd.  
Secretary-Treasurer: W. B. Greene, '08, care Stephens-Adamson Co.

BELLEVILLE: The Illini Club of Belleville

President: L. N. Perrin, '07, Penn bldg.  
Secretary: C. R. Ogle, '13, 617 E. B street

CENTRALIA: Centralia Illini Club

President: Charles Wham, '12

CHAMPAIGN: Champaign County Illini Club

President: I. U. Everhart, '09, 901½ W. California avenue, Urbana  
Secretary-Treasurer: R. F. Little, '07, 606 Chalmers street, Champaign

CHICAGO: The Illini Club of Chicago

President: E. E. Barrett, '93, 212 S. Madison avenue, La Grange

Secretary: R. E. Schreiber, '04, 1140 Otis bldg.

University of Illinois Alumnae Association of Chicago

President: Mabel Hopkins Hubbard, '01, 1409 Iowa street, Oak Park

Secretary-Treasurer: Carrie Norton Laemmle, '07, 6121 Drexel avenue, Chicago

DECATUR: Decatur Illini Club

President: W. J. Carey, '06, 718 W. Marietta street

Secretary-Treasurer: J. L. McLaughlin, '09, 502 Powers bldg.

FREEPORT: Freeport Illini Club

President: George Schmelze, ex-10, 447 Lincoln ave.

Secretary: R. M. Seeley, ex-16, 44 Lincoln ave.

**LA SALLE COUNTY:** La Salle County Illini Club  
 President: D. G. Cairns, '02, 633 Congress street, Ottawa  
 Secretary-Treasurer: J. R. Fornof, '10, 804 S. Park street, Streator

**PEORIA:** Peoria Illini Club  
 President: Irwin Fuller, '10, 415 Woolner bldg.  
 Secretary: E. V. Champion, '12, 549 Woolner bldg.

**ROCKFORD:** University of Illinois Club of Rockford  
 President: E. G. Brands, '11, care of Rockford *Morning Star*  
 Secretary-Treasurer: J. G. Fillmore, '09, 411 W. State street

**SPRINGFIELD:** Springfield Illini Club  
 Vice-President: E. D. Poston, ex-'11, 409 North Fifth street  
 Secretary: E. K. Stuart, '10.

**VERMILION COUNTY:** Vermilion County Illini Club  
 President: Lucy Lewis, '11, 418 West North street, Danville  
 Secretary-Treasurer: Madge Gundy, '09, Bismarck

**WESTERN ILLINOIS:** Western Illinois Illini Association  
 President: W. E. Whiteside, '07, Moline  
 Secretary-Treasurer: James M. Johnston, '09, Moline

#### *Indiana*

**INDIANAPOLIS:** Indianapolis Illini Club  
 President and Acting Secretary: C. E. Sargent, '86, 2272 N. Meridian street

#### *Iowa*

**DES MOINES:** Des Moines Illini Club  
 President and Acting Secretary: L. S. Ross, '89, 1308 Twenty-seventh street

#### *Massachusetts*

**BOSTON:** New England Illini Club  
 President: C. H. Blackall, '77, 20 Beacon street, Boston  
 Secretary: L. T. Fairhall, '11, Boylston Hall, Cambridge

#### *Michigan*

**DETROIT:** The University of Illinois Alumni Association of Detroit  
 President: J. L. Allen, ex-'01, 358 Garland avenue, Detroit  
 Secretary-Treasurer: E. D. Gorham, '11, 1320 Dime Bank bldg., Detroit

#### *Minnesota*

**MINNEAPOLIS AND ST. PAUL:** Illini Club of the Northwest  
 President: G. W. Rathjens, '10, 163 West Robie street, St. Paul  
 Secretary: E. O. Korsmo, '11, Y. M. C. A., St. Paul

#### *Missouri*

**KANSAS CITY:** University of Illinois Southwestern Alumni Association  
 President: A. B. Colton, ex-'81, 507 Sharp bldg., Kansas City  
 Secretary: D. C. Ketchum, '99, 518 New York Life bldg., Kansas City  
**ST. LOUIS:** The Illini Club of St. Louis  
 President: C. K. Rowland, '09, 1016 Third National Bank bldg., St. Louis  
 Secretary-Treasurer: A. W. Buckingham, '11, St. Louis

#### *New York*

**NEW YORK CITY:** University of Illinois Alumni Association of New York  
 President: S. T. Henry, '04, 239 West 39th street  
 Secretary: E. C. Prouty, '14, 239 West 39th street, New York  
**SCHENECTADY:** The Illini Club of Schenectady  
 President: O. E. Shirley, '10, 706 South ave.  
 Secretary-Treasurer: D. R. Lagerstrom, '11, Box 810

#### *North Dakota*

**FARGO:** Fargo Illini Club  
 President: E. S. Keene, '90, 1028 Seventh street, N.  
 Secretary-Treasurer: Frank White, '80, Valley City

#### *Ohio*

**CINCINNATI:** Cincinnati Illini Club  
 President: F. L. Swanberg, '03  
 Secretary: C. M. Kennan, '12, Seventh and Walnut streets  
**CLEVELAND:** The Illini Club of Cleveland  
 President: J. C. Cromwell, '86, Garrett-Cromwell Engineering Co., New England  
 bldg., Cleveland  
 Secretary: W. E. Underwood, '08, 102 Holyoke avenue

#### *Oregon*

**PORTLAND:** The Illinois Alumni Association of Portland

#### *Pennsylvania*

**PITTSBURGH:** University of Illinois Club of Pittsburgh  
 President: K. H. Talbot, '09, 522 Frick bldg.  
 Secretary-Treasurer: I. B. Stiefel, '12, 600 Mulberry street

#### *Tennessee*

**MEMPHIS:** Memphis Illini Club  
 President: D. M. Palmer, ex-'05, 213 N. Watkins street  
 Secretary: L. D. Knapp, '15, 839 Rayner street

#### *Texas*

**HOUSTON:** Houston Illini Club  
 President: H. E. Ratcliffe, ex-'03, 520 Beatty bldg.  
 Secretary-Treasurer: F. W. Weston, '10, care of Houston Structural Steel Co.  
**PALACIOS:** Gulf Coast Alumni Club  
 President and Acting Secretary: Mary Williamson Elder, '87

*Utah*

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